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Birds

A HANDBOOK

TO THE

BIRDS OF BRITISH BURMAH,

INCLUDING THOSE FOUND IN THE ADJOINING

STATE OF KARENNEE.

BY

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VOL. I.

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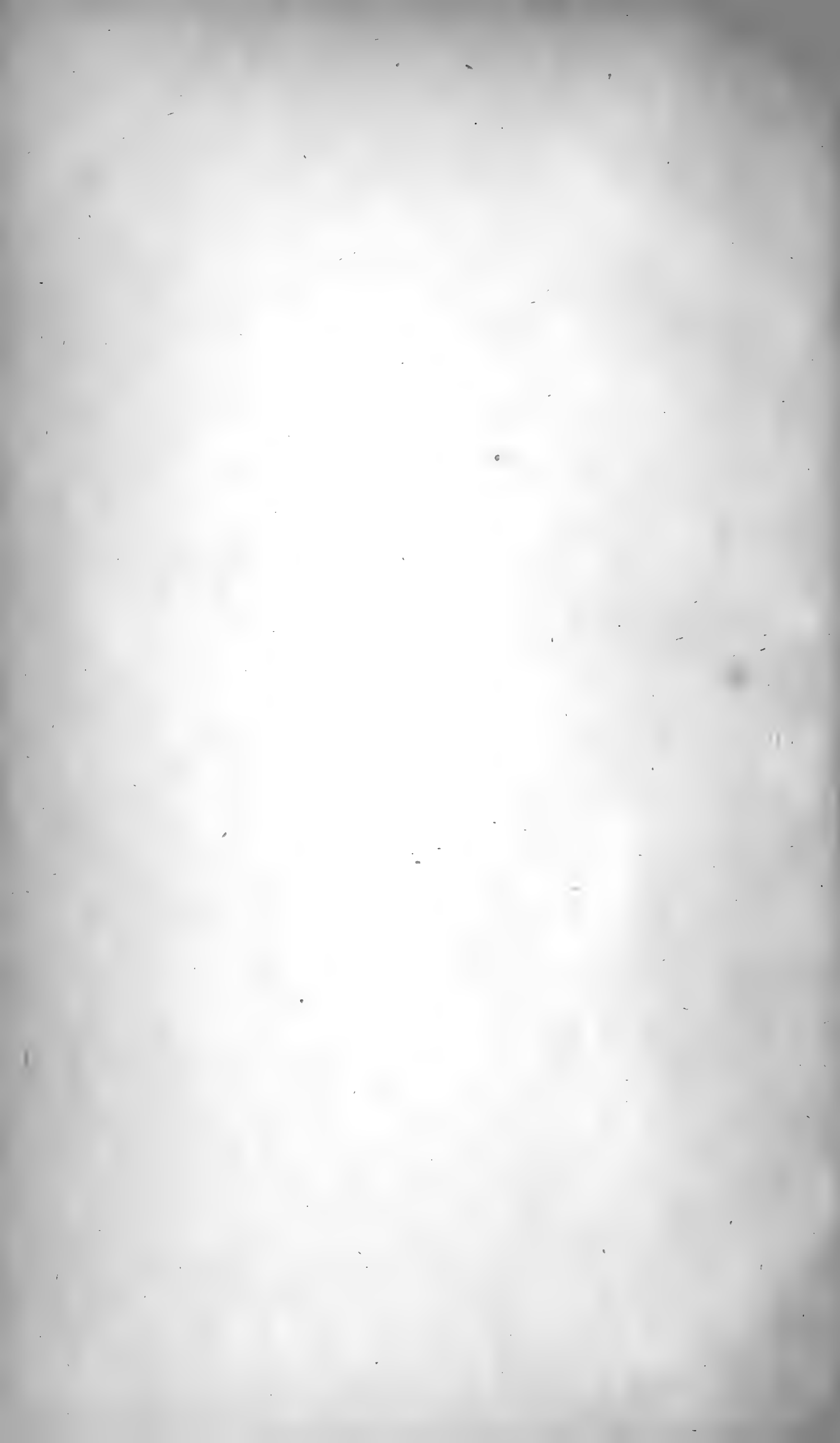
§ Birds

I DEDICATE
THIS HANDBOOK
TO MY FRIEND
R. BOWDLER SHARPE,
IN RECOGNITION OF
HIS TALENTS AS AN ORNITHOLOGIST
AND AS A
SLIGHT ACKNOWLEDGMENT OF THE ASSISTANCE I HAVE RECEIVED
FROM HIS GREAT WORK,
THE
'CATALOGUE OF BIRDS.'

PREFACE.

THE present work has been written in the leisure afforded by a leave of absence from Burmah of two years' duration. Time being limited and the subject inexhaustible, I found it necessary to lay before myself a very modest programme, one that I felt could safely be carried out within two years. I found that a very brief history of each bird, such as I have given, was the most that could be done with accuracy ; and I have been reluctantly compelled to avoid all lengthened notices of habits, anecdotes, and other matters which constitute pleasant reading.

My task has been rendered easy by the kind assistance I have received from friends in England. My most sincere thanks are due to Messrs. Dresser, Hargitt, and Seebohm for placing at my disposal the whole of their beautiful collections of birds ; to Captain Wardlaw Ramsay for the opportunity of examining the specimens procured by him in Karennee ; and to Mr. Bowdler Sharpe for constant and unremitting acts of kindness in his capacity as Curator of the Bird Collections in the British Museum, to which noble collection free access was always afforded me by Dr. Günther, the Keeper of the Zoological Department. My work in the library of the Zoological Society of London was much facilitated by the courtesy of Dr. Sclater, the Secretary to the Society ; and I acknowledge with thanks the assistance I have received at all times from Mr. F. Waterhouse, the Librarian to the Society. The two volumes of the 'Handbook' have been passed through the press very rapidly ; and my thanks are due to Messrs. Taylor and Francis for the speed and accuracy with which they have done the printing.



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Subfamily TANTALINÆ.

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728. — *stenura* (*Kuhl.*).

729. — *gallinula* (*Linn.*).

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INTRODUCTION.

No attempt has ever been made to write a connected and detailed account of the Birds of British Burmah. This is hardly to be wondered at, when it is remembered that a larger and much better-known portion of the Indian Empire, the Peninsula of India itself, has found but one historian for its birds, and twenty years have passed since Dr. Jerdon wrote his useful work, the 'Birds of India.' Whatever the merits of a work of this nature may be, the lapse of twenty years, with the progress and discoveries made during that period, must necessarily detract from its usefulness at the present time; and it is to be regretted that none of the several ornithologists competent for such a task should have attempted a fresh history of the birds of Peninsular India.

The only other work dealing with the ornithology of the Indian Region is Major Legge's 'History of the Birds of Ceylon.'

It is therefore evident that there is abundant room for works on the Avifauna of India; and, as a contribution to the subject, I have ventured to write the present 'Handbook' to the birds of one of the most interesting portions of the Empire.

The number of birds dealt with by me is little short of the total number included by Dr. Jerdon in his 'Birds of India;' and had I written this 'Handbook' two or three years hence, there is reason to believe that the total number of birds would have amounted to fully the same as Dr. Jerdon's, viz. one thousand.

The first ornithologist who attempted to work Burmah was the late Colonel Tickell. His field of work lay in Tenasserim, chiefly among the higher hills and mountains to the east of Moulmein, culminating in the peak of Mooleyit, which rises about 6000 feet above sea-level. His discoveries and observations were very valuable; but unfortunately the latter

are scattered throughout several volumes of the 'Journal of the Asiatic Society of Bengal' and other periodicals, and it is not easy to consult them. But he was as clever with his brush as with his pen; and he occupied himself during many years of his life in making a very complete record of his observations on Indian and Burmese birds, which is now deposited in the library of the Zoological Society of London. This work consists of seven volumes; and many of the more interesting birds are very beautifully drawn and coloured by his own hand. Not the least interesting part of these volumes are the amusing sketches at the end of the chapters, depicting familiar scenes of Indian native rural life. It is to be hoped that this unique and valuable work may eventually be published.

The late Mr. Blyth, after assuming charge of the Museum of the Asiatic Society of Bengal, in Calcutta, turned his attention to Burmese birds, and found willing contributors in Capt. (now Sir Arthur) Phayre, the late Major Berdmore, Dr. Mason, and others. Mr. Blyth's writings are to be found in nearly every volume of the Society's Journal. He contributed to 'The Ibis' several important papers, the result of his more matured experience; and his useful labours culminated just before his death in a Catalogue of Burmese birds, which was published, under the editorship of the late Lord Tweeddale, in 1875, in the 'Journal of the Asiatic Society of Bengal.' Mr. Blyth may justly be called the father of Indian ornithology.

Mr. Bryan Hodgson was not directly connected with Burmese ornithology; but so many of the birds he discovered and wrote about in Nipal are found in Burmah that his name will be found on nearly every page of the present work. Mr. Hodgson must share with Mr. Blyth the honour of being the pioneer of Indian ornithology. The enormous collections he formed in Nipal are now deposited in the British Museum.

Dr. Jerdon concerned himself little with Burmah; in fact he excluded the Province from the range of his book on the Birds of India; but he has furnished us with much useful information regarding Burmese birds in his work, and his volumes were no doubt the cause of many taking up the pursuit of birds who would otherwise have neglected it. His work will remain for all time the text-book of Indian ornithologists.

Dr. Mason, the venerated missionary, spent nearly all his life in Burmah, and was much addicted to the pursuit of natural science. As he himself modestly informed me, a year or two before his death, he was no scientific ornithologist; but he nevertheless wrote, with Mr. Blyth's

assistance, I think, a most useful catalogue of the Birds of Burmah in his 'Burmah; its People and Natural Productions.' This catalogue was for years, and is still, much consulted by residents in Burmah.

The late Marquess of Tweeddale, first under the name of Lord Arthur Hay, and subsequently under that of Lord Walden, devoted himself especially to the ornithology of India and South-eastern Asia. Burmah was fortunate in occupying his attention. His numerous valuable papers on ornithology have been collected together and published in one volume, edited by Capt. Wardlaw Ramsay.

Turning now to those who are engaged in active work in connexion with Burmese ornithology, I come to a small band of hard-working field-naturalists. Mr. Allan Hume in his study, and Mr. William Davison, his curator, in the field, have for many years past actively worked Tenasserim. The critical remarks of the former and the field-notes of the latter enrich every page of my work; and my task could not have been satisfactorily performed had this portion of Burmah not received that attention from them which it has.

Capt. R. G. Wardlaw Ramsay, during a few years' military service in Burmah, explored a considerable portion of Pegu, and furnished the Marquess of Tweeddale with valuable materials for criticism. His visit to Karennee, rich in results, has enabled me to add that outlying State to the area I have dealt with. Capt. Wardlaw Ramsay has kindly furnished me with a short note of his travels in Karennee, and I reproduce it below.

Other workers in the field of Burmese ornithology are:—Mr. W. T. Blandford, who wrote a list of the species procured by him in the Irrawaddy valley, published in 'The Ibis' for 1870; Capt. Feilden, who supplied Mr. Hume with some of the materials for his paper on the birds of Upper Pegu, published in 'Stray Feathers,' vol. iii.; Dr. Armstrong, who explored the Irrawaddy Delta, and published the results in vol. iv. of that periodical; Capt. Bingham, of the Forest Department, who for some years explored that little-known portion of Tenasserim comprised in the Thoungyeen valley, and whose papers will be found in vols. viii. and ix. of 'Stray Feathers;' the late Colonel Lloyd, Deputy Commissioner of Tonghoo, who collected birds in the north-east portion of Pegu; the late Captain Beavan, who resided for a short period at Moulmein, and was a devoted worker at ornithology; Mr. Olive and Mr. de Wet, of the Police Department, who from time to time kindly collected specimens for me in

various parts of Pegu; Mr. Hough, Assistant Commissioner at Malewoon, who collected birds at that place; and Mr. Shopland, Port Officer at Akyab, who has furnished me with many valuable notes for this work.

During my long residence in Burmah I have traversed every portion of Pegu and formed large collections of birds at various points. Parties of men in my employment have at times collected for me in Arrakan, and on one occasion I sent a party to Malewoon, in the south of Tenasserim, to form a collection. This resulted in making my materials for the present work very rich; the number of specimens I brought to England exceeded 5000, and comprised some 600 species out of the 781 I have had to deal with.

British Burmah is an irregular, narrow, maritime country, hardly any portion being more than 200 miles from the sea. It lies entirely within the tropics, the most northern portion of Arrakan being at a short distance from the northern tropic, and the most southern point of Tenasserim lying on the 10th degree of north latitude. It is bounded on the east by Independent Burmah and Siam. The general character of the country may be said to be mountainous, the only flat portions being strips of land along the banks of the larger rivers and considerable areas at the mouths of these rivers. The deltas of the large rivers are but little elevated above high water of spring-tides, and are intersected in all directions by creeks, which form admirable means of communication by means of boats.

British Burmah is termed a "Province," and the three portions into which it is divided for administrative purposes, "Divisions."

Arrakan, the Northern Division, is mountainous throughout, except near Akyab and along portions of the sea-coast. It is traversed by innumerable streams, none of which, however, are of any great size. The range of mountains separating Arrakan from Independent Burmah and from Pegu are of considerable altitude, and will probably yield a great number of species of birds found in the Himalayas but not yet recorded from Burmah. The whole Division is ornithologically unexplored.

Pegu, the Central Division, is traversed by two rivers of great size. The Irrawaddy, which passes through British territory for 300 miles, is a noble stream seldom less than one mile broad. A portion of its waters leaves the main stream above Henzadah, and flows down to the sea past Bassein; the remainder, after reaching Yandoon, traverses a number of large channels, and forms a delta which is the most fertile portion of the Province.

The second river, the Sittang, is of less magnitude, and, owing to the configuration of the coast, traverses British territory for about 200 miles only. Its breadth at the frontier is inconsiderable, but from Myitkyo down to the sea it is not unfrequently half a mile broad. This river is noted for its high bore, a danger to navigation which the construction of a canal between the Pegu and the Sittang rivers was designed to avert. The range of hills between the Irrawaddy and Sittang rivers rise to an altitude at the highest point, east of Pounday, of 2500 feet.

Tenasserim, the Southern Division, consists of a mass of mountain-ranges. Its northern portion is traversed by the Salween river, one of great size, but rendered useless for purposes of navigation by reason of its numerous rapids. Two of the highest peaks in Tenasserim are named respectively Mooleyit and Nwalabo, and their elevation is about 7000 feet.

Karennee, a State lying to the north-east of Pegu, is a small block of mountainous country inhabited by a race called Red Karins. The highest peak, named Nattoung, is said to be 8000 feet above the level of the sea. A dispute about the boundaries between this State and Independent Burmah led the Indian Government in 1874 to send a small political expedition into Karennee. Capt. Wardlaw Ramsay was fortunately able to accompany this expedition and to form a rich collection of birds. He writes :—

“ On the 5th March, 1874, an expedition under the orders of the late Col. Malcolm Lloyd, Deputy Commissioner of the Tonghoo district, left that place with directions to proceed on a political errand to Khyai-phogyee, the chief village of the Karennee country. One of that lamented officer's numerous acts of kindness to me during my sojourn in Tonghoo was to include me in his party.

“ The journey was throughout over a mountainous country. The direction of the first ten marches was due east to a village called Domoloo, within twenty miles of the Salween river. During these marches no birds particularly worthy of mention were collected, excepting a specimen of *Ægithaliscus erythrocephalus*, which I shot near Hkoosaloo on the 13th March, and a new *Zosterops* (*Z. austeni*, Walden *) a little further on.

“ From Domoloo for the remaining six marches the course was nearly due north, but nothing of interest was obtained until our arrival at Khyai-

* Vol. i. p. 343.

phogyee, where the party halted for eight days. Here, at a general elevation of 3000 to 4000 feet, I met with many species for the first time, such as *Acridotheres siamensis* (the common Mynah of the place), *Niltava sundara*, *Garrulus leucotis*, and a new species of *Actinodura*, named *A. ramsayi* by the late Lord Walden.

“We commenced the return journey on the 30th March, arriving at a village called Greesho (3000 feet) on the following day; here I obtained *Niltava sundara* again and also *N. macgregoriæ*. On the 1st April we began to ascend until a Karen village called Hteelauloo, at 5000 feet, was reached. This spot was the most productive of all in birds. A native offered to go and catch me some birds, and accordingly started off with cowhair nooses and the larvæ of some beetle for bait, and returned in a few hours with a hastily made bamboo cage, in which was contained alive six specimens of *Trochalopteron melanostigma*, one *Merula pallida*, one *Geocichla sibirica*, another *Geocichla* (since named *G. dixonii* by Mr. Seebohm), besides many other birds.

“I also shot at this place specimens of *Brachypteryx cruralis* and *Digenea moniliger*.

“It was with considerable regret that I left this rich locality on the following morning. We still ascended until an elevation of 6000 feet was attained. This march was also productive, as specimens were obtained for the first time of *Cutia nipalensis*, *Lioptila saturata*, Wald., *Sibia picaoides*, *Paradoxornis ruficeps* and *P. gularis*, and *Batrachostomus affinis*, Bl.

“On the next day I procured a specimen of *Pnoepyga albiventris*; but after that we came daily nearer to country already traversed, so no novelties were obtained until the last descent into the valley of the Sittang, when I obtained a specimen of *Vivia innominata* at a place called Ngamwai Zayat.

“During a later expedition in 1876 over much the same route, under the command of Lieut. Lloyd of the Royal Engineers, my collector obtained two additions to the fauna, in the shape of a new Nuthatch (*Sitta magna*, mihi) and a specimen of *Monticola erythrogaster*. A more detailed account of this journey will be found in ‘The Ibis,’ 1875, pp. 348–353.”

The results of Capt. Wardlaw Ramsay’s expedition were so interesting that, although Karennee forms no part of British Burmah, I was glad to include it in my work.

The whole of British Burmah, where not cultivated, is covered with a dense growth of vegetation. On the hills and elevated portions this vegetation is chiefly forest of large trees and bamboos; on the low alluvial plains almost entirely elephant-grass of great height. The cultivated portions of the country are chiefly given up to the growth of rice.

The year is abruptly divided into two seasons, the rainy and the dry. The rainy season commences about the middle of May and terminates in October, or somewhat later. The rainfall during these five months varies from upwards of 200 inches on the sea-coast to less than 50 inches in some parts of Pegu near the frontier. The dry season may be divided into two periods—the cold weather, which commences soon after the cessation of the rains and lasts up to the middle of February; and the hot weather, which extends from the middle of February to the commencement of the rains in May.

The climate of Burmah is, on the whole, humid, and its effect, as in other humid countries, is to cause the plumage of the birds to be of greater brilliancy. The difference of coloration between *Merops viridis*, for example, as found in Burmah and the same bird as found in the drier parts of India is very striking, and the same may be said of numerous other species.

Burmah belongs to that zoological region which comprises the Himalayas, Peninsular India, the Indo-Burmese countries*, Southern China, Cambodia, Cochin China, Siam, the Malay peninsula, Sumatra, Java and Borneo. The character of the avifauna of these countries is very similar. Taking the Passeres only, of which 400 are enumerated in my work, I find that the following are the numbers, so far as is known at present, that occur in each of the countries above mentioned. I omit from this statement the Indo-Burmese countries, about which hardly any thing is known, and also Cambodia and Siam.

Peninsular India and Himalayas . . .	215
China	106
Cochin China	353
Malay peninsula	129
Sumatra	91
Java	65
Borneo	77

* By this term I mean the territory, both British and Independent, lying between Bengal and British Burmah, and extending eastwards to the confines of China.

I have made the above comparison as carefully as possible; but the information regarding some of the countries above enumerated is very meagre, especially with regard to China. Two hundred Burmese Passeres will, in all probability, be ultimately found in that large country.

A remarkable feature regarding Burmah is the large proportion of Passerine birds to be found in comparison to those of other orders. The following figures exhibit at a glance the number of species in each of the orders that are represented in Burmah:—

I. PASSERES	401
II. MACROCHIRES.	19
III. PICI	34
IV. COCCYGES	68
V. PSITTACI	7
VI. STRIGES	19
VII. ACCIPITRES	46
VIII. STEGANOPODES	14
IX. HERODIONES	27
X. ANSERES	14
XI. COLUMBÆ	22
XII. GALLINÆ	21
XIII. GERANOMORPHÆ.	14
XIV. LIMICOLÆ	47
XV. GAVIÆ	23
XVI. TUBINARES	4
XVII. PYGOPODES	1

Large as is the total number of species found in Burmah, it must not be supposed that the list is at all complete. Much remains to reward the explorer on the higher mountains, both of Arrakan and Tenasserim. The former Division has hardly been worked at all; the latter has been explored in a thorough manner, it is true, by Mr. Davison and Capt. Bingham, but much of the interior country bordering on Siam, and at present almost impracticable to a European, remains to be visited. The astonishing results which rewarded Capt. Wardlaw Ramsay in Karennee show what may be expected from a visit to the high mountainous parts of Burmah.

In dealing with each species I have first given the synonymy in tolerable

detail. I have in every instance given the original references to all names which have passed current among ornithologists. I have also in every instance quoted Jerdon's 'Birds of India,' Legge's 'Ceylon,' David and Oustalet's 'China,' and Salvadori's 'Borneo.' Copious references will also be found to Lord Tweeddale's writings, to 'Stray Feathers,' and to Mr. Blyth's Catalogue. I have endeavoured to give every reference which contains interesting matter relative to habits, nidification or critical discussion.

I have next described the bird as fully as possible from the best materials at my disposal, and have given brief, average measurements. Nothing, in my opinion, is more useless than extremely minute measurements, and I have, as a rule, selected a good typical specimen for measurement. The variations will perhaps vary five per cent. on either side of the measurements given by me.

I have next given the distribution of the bird in Burmah. This in most cases has been done in considerable detail, but I have carefully avoided quoting the names of obscure villages.

The distribution out of Burmah will, I hope, be found to have been satisfactorily done.

I have introduced, where necessary, a brief discussion on the synonymy or the vexed question of whether there is more than one species under the head referred to.

The habits have been dealt with very briefly; but I believe I have said all that is necessary to show the ornithologist where the birds are to be met with, and their times and modes of nidification.

On the whole my aim has been to produce a portable, clearly written work, which will enable the naturalist in Burmah to identify the birds he meets with, and the naturalist in Europe to form some idea of the state of ornithology in a distant British possession in the East.

GLOSSARY OF BURMESE NAMES.

It is almost unnecessary to say that the natives of Burmah have names for only those birds which, from their size, abundance, gaudy plumage, or other peculiarities, attract notice. The following glossary contains all those names which, in the course of a long residence in Burmah, I have heard applied to birds. I have also added some given by Dr. Mason; * for, although I am personally ignorant of them, they are likely to be in common use in Tenasserim, where Dr. Mason long resided.

အောက်ချိုင်း	Oukchin.	General name for the Horn-bills, ii. p. 87.
ဥဇ္ဇော	Oo-au.	The Coël, ii. p. 119.
ဥဒေါင်း	Oo-doun.	The Peafowl, ii. p. 312.
ကုပ်ခလောင်	Kokaloun.	General name for the Barbets, ii. p. 129.
ကုလားကပ်	Kalagat.	The Teal Goose, ii. p. 272.
ကျက်တုရွေး	Kyet-tu-yuay.	General name for the Paroquets, ii. p. 139.
ကျက်တေား	Kyet-tau.	The Large Burmese Paroquet, ii. p. 139.
ကျီးကန်	Kyeegan.	General name for the Crows, i. p. 297.
ကျေးကုလား	Kyay-kalah.	Finsch's Paroquet, ii. p. 142, and also the Rose-headed Paroquet, ii. p. 145.
ကျေးကျွတ်	Kyaygyot.	The Rose-ringed Paroquet, ii. p. 141.
ကျေးတမာ	Kyay-tamah.	The Rose-headed Paroquet, ii. p. 145.
ကျေးမောင်ခါး	Kyay-hpoungkah.	The Large Burmese Paroquet, ii. p. 139.
ကျေးသတာ	Kyay-thatah.	The Loricet, ii. p. 146.

* "Burmah; its People and Natural Productions," by the Rev. F. Mason, D.D. Rangoon, 1860.

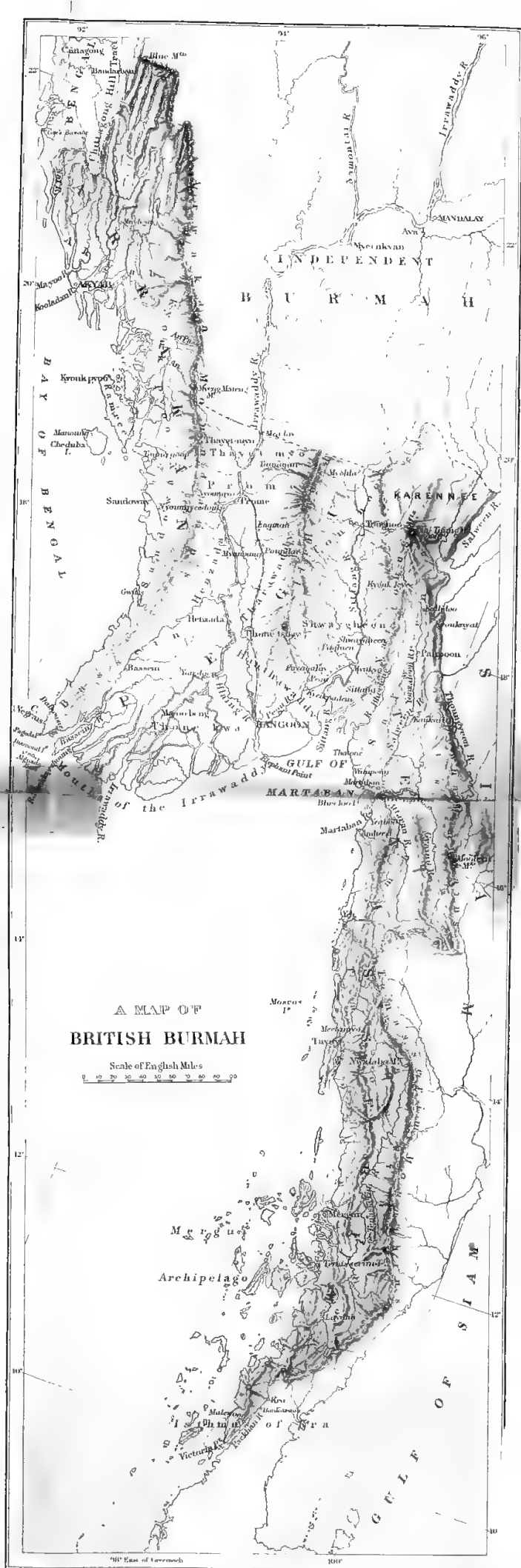
ကြီးကြာ	Gyo-gya.	The Sarus Crane, ii. p. 354.
ခင်ပုတ်	Kinpote.	Applied to some of the Owls, ii. p. 148.
ခရုစုတ်	Kayusote.	General name for the Ibises, ii. p. 268.
ခါ	Hkah.	The Francolin, ii. p. 323.
ခြေချင်းစွပ်	Cheegyinsoot.	The White-necked Stork, ii. p. 265.
ချွန်းထိုး	Kyun-hto.	The Loriquet, ii. p. 146.
ဂျိုး	Gyo.	General name applied to the Doves, ii. p. 290.
ဂျိုးစိမ်း	Gyo-sane.	The Emerald Dove, ii. p. 297.
ဂျိုးသိန်း	Gyo-thane.	General name for some of the smaller Hawks, as the Kes- tril, ii. p. 217.
ငါးဟစ်	Nga-hit.	The Purple Heron, ii. p. 245.
ငိုး	Ngone.	General name for the Quails, ii. p. 331.
ငူ	Ngoo.	General name for the Green Pigeons, ii. p. 304.
ငှက်ကုလား	Hnet-kalah.	The Black-necked Stork, ii. p. 264.
ငှက်ကျား	Hnet-kyā.	The Pelican Ibis, ii. p. 267.
ငှက်ခါး	Hnet-kah.	The Roller, ii. p. 69.
ငှက်ဥခွေး	Hnet-nga-nwa.	The Imperial Pigeon, ii. p. 301.
ငှက်စိမ်း	Hnet-sane.	General name for the Green Bulbuls, i. p. 205.
ငှက်ဆိုး	Hnet-hso.	The Barn-Owl, ii. p. 167.
ငှက်တလိုင်း	Hnet-talein.	General name for the Plovers, ii. p. 364.
ငှက်တော်	Hnet-dau.	General name for the Drongos, i. p. 217.
ငှက်ပစ်ထိုး	Hnet-pasin-to.	General name for the Bee- eaters, ii. p. 63.
ငှက်ပန်ထိန်	Hnet-padane.	The Crimson-gorgeted Bar- bet, ii. p. 136.

ငှက်ပုတီး	Hnet-padee.	General term applied to the Munias, ii. p. 364.
ငှက်ပျားစိပ်	Hnet-pya-sate.	The Fairy Bluebird, i. p. 209.
ငှက်ပြင်း	Hnet-pyin.	General name for the Night-jars, ii. p. 17.
ငှက်ဘီလူး	Hnet-beloo.	General name for the Shrikes, i. p. 248.
ငှက်မင်းသား	Hnet-mintha.	General name for the Scarlet Minivets, i. p. 236.
ငှက်ဝါ	Hnet-wah.	General name for the Yellow Orioles, i. p. 211.
စက္ကဝက်	Sekkawet.	The Eastern White Pelican, ii. p. 239.
စစ်စလီ	Sissalee.	The Whistling Teals, ii. p. 273.
စါ	Sah.	General name for all the conirostral birds, i. p. 345.
စာခေါင်းကွက်	Sah-goun-gwet.	The Weaver-birds, i. p. 358.
စွန်	Zoon.	The House-Kite, ii. p. 202.
စွန်ခေါင်ဖြူ	Zoon-koun-byoo.	The Brahminy Kite, ii. p. 201.
ဆင်ပိန်ညှင်း	Hsin-pay-nyin.	Applied to the large Kingfishers, ii. p. 78.
ခြင်ရော်	Zin-yau.	General name for the Terns, ii. p. 419.
ဇရက်	Zayet.	General name for the Mynahs, i. p. 377.
ဇြီးကွက်	Zee-gwet.	General name for the small Owls, ii. p. 157.
ဇြီဝို	Zee-wa-so.	General name for the Swiftlets, ii. p. 7.
တင်ကျီ	Tin-gyee.	General name for the Cormorants, ii. p. 231.
တိတိတူ	Tee-tee-doo.	The Burmese Lapwing, ii. p. 374.
တီးတုတ်	Tee-dote.	General name for the large Horned Owls, ii. p. 148.
တောကြက်	Tau-gyet.	The Jungle-fowl, ii. p. 322.
တောဘဲ	Tau-bay.	The Comb-Duck, ii. p. 275.

တောင်ခါ	Toun-hka.	The Hill-Partridges, ii. p. 325.
တောင်ငို	Toun-ngone.	General name applied to the Pittas, i. p. 411.
တောင်ပီစုတ်	Toun-bee-sote.	The Hoopoe, ii. p. 62.
ထထရ	Htat-ta-yu.	General name applied to the Trogons, ii. p. 99.
ဒိန်ညင်း	Dane-nyin.	General name applied to the small Kingfishers, ii. p. 72.
ဒုံးဝပ်	Don-zat.	The Large Adjutant, ii. p. 262.
ဒုံးမီးကွက်	Don-mee-gwet.	The Smaller Adjutant, ii. p. 263.
ဒေါင်း	Doun.	The Peacock, ii. p. 312.
ဒေါင်ဥချောက်	Doun-oo-hnouk.	The Falconet, ii. p. 211.
ဒေါင်ကုလား	Doun-kalah.	The Peacock Pheasant, ii. p. 315.
ဒေါင်စွန်	Doun-zoon.	The Harrier Eagles, ii. p. 193.
နံပြည်စုတ်	Nan-pee-sote.	General name applied to the Warblers, ii. p. 77.
နံပွင်စုတ်	Pan-bwin-sote.	} Applied to the Sun-birds, i. p. 313.
ပန်းရည်စုတ်	Pan-yee-sote.	
ပိန်ညင်း	Pane-nyin.	General name for the Kingfishers, ii. p. 72.
ပုတ်	Bote.	The Coucal, ii. p. 126.
ပျားတူးငှက်	Pya-too-hnet.	The Blue-bearded Bee-eater, ii. p. 63.
ပြန်လွှား	Pyan-hlwa.	General name applied to the Swifts, ii. p. 1.
မိုးကောင်	Hpo-goun.	General name for the Barbets, ii. p. 129.
မောင်တုပ်	Boun-dote.	The Water-cock, ii. p. 349.
မြင်း	Hbyein.	General name applied to the Herons, ii. p. 243.
မြင်းဆောက်	Hbyein-ouk.	The Pond-Heron, ii. p. 252.

ဘီး	Bee.	The Bronze-winged Jacana, ii. p. 358.
ဘီလုံး	Bee-lone.	The Sky-Lark, i. p. 373.
ဘုမ္မတီ	Bom-ma-dee.	General name in some parts for the Green Pigeons, ii. p. 204.
မိုဃ်ကောင်ငှက်	Mo-goun-hnet.	The Broad-billed Roller, ii. p. 70.
မိုးစွေငှက်	Mo-sway hnet.	General name applied to the Swallows, i. p. 302.
မြစ်ထွေး	Myit-htway.	General name applied to the Terns, ii. p. 419.
မြေခန့်	Myay-kone.	} General name applied to the Pittas, i. p. 411.
မြေငှို	Myay-ngone.	
မြေလူးငှက်	Myay-loo-hnet.	General name applied to the Thrushes, i. p. 1.
မြေဝတ်း	Myay-woot.	General name applied to Snipe and Snipe-like birds, ii. p. 380. Many Burmans, ac- customed to follow Euro- peans, now call the Snipe by its English name.
မီးငေါက်	Myee-ngouk.	} The Wagtails, i. p. 154.
မီးညောင်	Myee-nyoun.	
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HANDBOOK

TO THE

BIRDS OF BRITISH BURMAH.

Subclass AVES CARINATÆ.

Order PASSERES.

Suborder OSCINES.

Section OSCINES DENTIROSTRES.

Family TURDIDÆ*.

Subfamily TURDINÆ.

Genus MERULA, *Leach*.

1. MERULA OBSCURA.

THE DARK OUZEL.

Turdus obscurus, *Gm. Syst. Nat.* i. p. 816; *Wald. Trans. Zool. Soc.* ix. p. 187; *Bl. B. Burm.* p. 99; *Hume & Dav. S. Feath.* vi. p. 251; *Dresser, Birds of Europe*, ii. p. 71, pl.; *Dav. et Oust. Ois. Chine*, p. 153; *Hume, S. F.* viii. p. 94. **Turdus pallens**, *Pall. Zoogr. Rosso-Asiat.* i. p. 457; *Salvad. Ucc. Born.* p. 256. **Turdus rufulus**, *Drap. Dict. Class. d'Hist. Nat.* x. p. 443; *Ball, S. F.* i. p. 69. **Turdus modestus**, *Eyton, P. Z. S.* 1839, p. 103. **Merula obscura**, *Seebohm, Cat. Birds B. Mus.* v. p. 273.

Description.—*Male.* Upper plumage olive-brown, tinged with slaty on the head, the primaries and the inner webs of the other quills dark brown; a narrow supercilium, white; lores black; chin and base of lower mandible white, as also a narrow short line produced down from the lower mandible; throat, cheeks, ear-coverts and sides of the neck dusky slaty; breast and

* I follow pretty closely the arrangement of families adopted by Mr. Salvin in his recent 'Catalogue of the Birds in the Strickland Collection.'

sides of the body ochraceous ; abdomen, vent and under tail-coverts white ; under wing-coverts and axillaries pale grey.

The *female* is like the male, but has the lores brown ; the supercilium, chin and a line down the throat buffy white ; the ear-coverts are dark brown, striped with buffy ; a buffy white line runs from the bill under the ear-coverts, and a brown one between this and the throat ; the top of the head is coloured like the back.

Young birds have the upper parts striped with ochraceous, and the wing-coverts have tips of the same colour. The feathers of the breast have broad brown tips.

Iris olive-brown ; eyelids greenish ; upper mandible dark brown ; lower mandible and gape yellow ; inside of mouth yellow ; legs yellowish brown ; claws horn-colour.

Length 8·6 inches, tail 3·5, wing 4·8, tarsus 1·2, bill from gape 1·1. Mr. Hume's dimensions of this bird are considerably larger. The above are the measurements of a female shot in Pegu. The males are rather larger.

The Dark Ouzel is recorded from Arrakan by Mr. Blyth. I procured one specimen in Pegu, at Kyeikpadein, in April. Mr. Davison appears to have found it common in Tenasserim from north to south, alike in the hills and plains. It is a winter visitor to Burmah, and it extends at that season of the year to China, Northern India, the Indo-Burmese countries, the Malay peninsula, and the larger islands as far as Java.

It summers in Siberia, and Mr. Seeböhm found the nest in the valley of the Yenesei in June. Occasionally this Ouzel straggles into Europe.

Mr. Davison mentions that this bird is found in flocks, feeds on the ground, and leaves Tenasserim before the end of March.

2. MERULA PALLIDA.

THE PALE OUZEL.

Turdus pallidus, *Gm. Syst. Nat.* i. p. 815 ; *Wald. in Bl. B. Burm.* p. 99 ; *Dav. et Oust. Ois. Chine*, p. 151 ; *Hume & Dav. S. Feath.* vi. p. 253 ; *Hume, S. F.* viii. p. 94. **Turdus daulias**, *Temm. Pl. Col.* 515. **Merula pallida**, *Seeböhm, Cat. Birds B. Mus.* v. p. 274.

Description.—*Male.* Whole upper plumage rich ruddy brown, the head darker and shaded with slaty and the forehead bright ; lores black ; cheeks and ear-coverts, chin and throat slaty brown, darker on the ear-coverts ; sides of the neck and breast like the back, but paler, and washed with white on the centre of the breast ; abdomen, vent and under tail-coverts pure white, the latter marked with brown ; flanks and sides of the body

like the breast; smaller wing-coverts like the back; greater coverts ruddy brown on the outer web, and plain brown on the inner; primaries brown, edged with grey on outer webs; secondaries and tertiaries brown on the inner webs, ruddy brown on the outer; tail blackish brown, the three outer pairs of feathers tipped with white on the inner webs.

Female. Like the male in general, but the slaty parts are replaced by ruddy brown, like the other parts of the upper plumage; the chin and throat are whitish.

The *young* are like the female, but the greater wing-coverts are tipped with buffy.

Length 8 inches, tail 3·6, wing 4·9, tarsus 1·2, bill from forehead 1.

The Pale Ouzel was procured in Karennee at an elevation of 5000 feet in January by Capt. Wardlaw Ramsay; and Mr. Davison got one specimen on Mooleyit in Tenasserim also in the cold season. There is no other record of its occurrence in British Burmah.

It winters in South China, and it was observed by Colonel Godwin-Austen in the hill-tracts of Eastern Bengal. It summers in Eastern Siberia and Japan. Little is known of its habits.

Genus GEOCICHLA, *Kuhl.*

3. GEOCICHLA CITRINA.

THE ORANGE-HEADED GROUND-THRUSH.

Turdus citrinus, *Lath. Ind. Orn.* i. p. 350. **Geocichla citrina**, *Jerd. B. Ind.* i. p. 517; *Hume, Nests and Eggs*, p. 229; *Bl. B. Burm.* p. 99; *Oates, S. Feath.* v. p. 151; *Hume & Dav. S. F.* vi. p. 250; *Hume, S. F.* viii. p. 94; *Legge, Birds Ceyl.* p. 457; *Scully, S. F.* viii. p. 283; *Hume, S. F.* ix. p. 101; *Seebohm, Cat. Birds B. Mus.* v. p. 172.

Description.—*Male and female.* The whole head, neck, breast, belly and flanks orange-buff, darkest on the head and albescent on the chin and throat; vent, thighs and under tail-coverts pure white; back, rump, upper tail-coverts, scapulars and the smaller wing-coverts dark bluish grey, all the feathers edged paler; some of the wing-coverts near the edge of the wing tipped white and forming a conspicuous wing-spot; the larger wing-coverts and the primary-coverts chiefly dark brown, the outer edges broadly ashy; wing dark brown, the outer webs margined with ashy, and the inner webs white at their bases; under wing-coverts white, mixed with ashy; tail ashy brown.

What appear to be young birds have the feathers of the back, rump and tail-coverts edged with pale yellowish brown instead of ashy.

Bill very dark brown, the gape and base of lower mandible flesh-colour; inside of mouth flesh-colour; eyelids slate-colour; iris dark hazel; legs fleshy pink; claws pink.

Length 8·8 inches, tail 3, wing 4·6, tarsus 1·3, bill from gape 1·1. The female is the same size.

The Orange-headed Ground-Thrush is spread over every portion of British Burmah, and is a constant resident. It does not appear to be anywhere very common. Capt. Wardlaw Ramsay met with it also in Karennee.

It appears to be found throughout the whole range of the Himalayas up to about 5000 feet elevation in summer, and to descend to the plains of India in winter, at which season it reaches to Ceylon, if *G. layardi* be really the same species. It no doubt is also found over the Indo-Burmese countries. A doubtfully distinct species, *G. innotata*, is found in the Malay peninsula.

Although this Thrush is said to be migratory in India, in Burmah it is a resident species. I have procured it all through the cold weather, and I have found the nest in May and June near Pegu and Kyeikpadein. It builds in shrubs or low trees at heights not more than 20 feet from the ground, and makes a massive cup-shaped nest of roots and strips of soft bark, lined with moss and fern-roots. The eggs are three in number, greenish white, mottled with reddish brown.

It is rather a familiar bird, not avoiding man or retreating far from villages. When disturbed, however, it soon conceals itself. It moves about on the ground, turning over leaves and searching for worms and insects. It is said to have a pretty song; but I have never heard it.

4. GEOCICHLA SIBIRICA.

THE SIBERIAN GROUND-THRUSH.

Turdus sibiricus, *Pall. Reis. Russ. Reichs*, iii. p. 694; *Wald. in Bl. B. Burm.* p. 100; *Dresser, Birds Eur.* ii. p. 87, pl.; *Dav. et Oust. Ois. Chine*, p. 149; *Hume, Str. Feath.* viii. p. 94; *Seebohm, Ibis*, 1879, p. 5. **Turdulus davisoni**, *Hume, Str. Feath.* v. pp. 63, 136. **Turdulus sibiricus**, *Hume & Dav. S. F.* vi. pp. 255, 513. **Geocichla sibirica**, *Seebohm, Cat. Birds B. Mus.* v. p. 180.

Description.—*Male.* Whole upper plumage with the chin, throat, breast, flanks, sides of the body and sides of the abdomen deep slaty grey, each feather margined paler; centre of the abdomen and vent white; under tail-coverts slaty, tipped with white; axillaries white, tipped with slaty; lores and sides of the head almost black; a distinct white supercilium,

reaching to the nape; quills dark brown, all except the first two with a large white patch on the inner web; tail dark brown, the outer feathers tipped with white.

Female. The whole upper plumage olive-brown, tinged with slaty and rufescent on the outer webs of the wing-feathers and wing-coverts; tail with the three outer pairs of feathers tipped white; eye-stripe, chin and throat buff; a stripe on either side the chin dark brown; sides of the head mixed brown and buff; lower plumage pale buffy white, each feather with a broad tipping of brown; axillaries white, tipped with brown; under tail-coverts and vent white, splashed with brown.

Young birds are probably like the female.

Adult males had the bills black; irides deep brown; the front of legs, feet and claws greenish yellow; back of legs dirty yellow. Females had the irides dark brown; the upper mandible very dark brown; the lower mandible and gape to angle of gonys dirty yellow; legs, feet and claws orange-yellow. (*Davison.*)

Length 9 inches, tail 3·4, wing 4·8, tarsus 1·1, bill from gape 1·1. The female is about the same size.

The Siberian Ground-Thrush is a winter visitor to Burmah. Capt. Wardlaw Ramsay procured it in Karennee in March, at an elevation of 2500 feet. Mr. Davison found it rare on Mooleyit mountain, but very common round the foot of Nwalabo, further south. I did not meet with it in Pegu, nor is it recorded from Arrakan.

This Thrush has a very wide range. It summers in Siberia and Japan, and in winter visits China and has been found as far south as Java.

Mr. Davison observes that it goes about in flocks, as many as sixty being seen together, and they particularly frequented, in the mornings and evenings, large trees of a species of fig, then in fruit (April). Mr. Seeböhm remarks that it is a very shy bird; and one which he observed in Siberia was feeding amongst the dead leaves on the ground.

5. GEOCICHLA DAUMA.

THE HIMALAYAN GROUND-THRUSH.

Turdus dauma, *Lath. Ind. Orn.* i. p. 362. **Oreocincla dauma**, *Jerd. B. Ind.* i. p. 533; *Hume, Nests and Eggs*, p. 236; *Ball, Str. Feath.* ii. p. 408; *Hume, S. F.* iii. p. 115; *Wald. in Bl. B. Burm.* p. 100; *Hume & Dav. S. F.* vi. p. 256; *Hume, S. F.* viii. p. 94; *Bingham, S. F.* ix. p. 178. **Geocichla dauma**, *Seebohm, Cat. Birds B. Mus.* v. p. 154.

Description.—*Male and female.* The whole upper body-plumage rich olive, each feather with a terminal lunar tipping of black, with an interior pale fulvous spot; scapulars the same, the black tipping larger and extending more on the inner than on the outer web; wing-coverts chiefly dark brown or black, tipped with large fulvous spots, which colour also suffuses the outer webs of the greater series of coverts; greater coverts to primaries blackish, the central portion of the outer webs tawny; quills brown, the outer webs suffused with tawny fulvous, the tertiaries partially tipped with the same; basal portions of the inner webs fulvous white; the two central pairs of tail-feathers plain olive-brown; the next pair olive-brown on the basal half and brown on the remainder, tipped with white; the next with the olive-brown of the basal portion less extended, and with a greater portion dark brown, tipped white; the next pair nearly all brown, broadly tipped with white, the base of the outer web only being olive-brown; the outer pair brown on basal half, the terminal half being whitish brown and the outer web margined with pale olive-brown; lores whitish, with the shafts brown; cheeks and ear-coverts white, terminated by black tips, in front of which are fulvous marks; chin white; throat and breast white, terminally fulvous and tipped with crescentic marks of black; belly and flanks white, with similar black tips, but with the interior fulvous marks much less in extent; centre of belly nearly pure white; under tail-coverts white, a few of the feathers obsoletely tipped with brown; under wing-coverts white, with a broad black band across the middle; thighs white, barred with brown.

Upper mandible and centre of the lower one dark brown, the remainder of lower mandible pale brown, the gape tinged with orange; inside of mouth yellowish; eyelid and ocular region plumbeous; iris dark hazel-brown; legs and claws fleshy white.

Length 10·4 inches, tail 3·8, wing 5·6, tarsus 1·3, bill from gape 1·2. The female is rather smaller.

The Himalayan Ground-Thrush is a winter visitor to Burmah. I procured it on the Pegu hills in April, and in the plains at Kyeikpadein in the cold weather. Capt. Wardlaw Ramsay procured it at Tonghoo and in

the Tonghoo hills at 5000 feet elevation. Mr. Davison met with it in Tenasserim, at Paraduba and on Mooleyit mountain.

This Thrush is found in summer in the Himalayas from Kumaon to Assam, and in winter it descends to the plains, having been found, according to Dr. Jerdon, as far south in India as the Wynaad. It has also been met with in the Khasia hills, and is probably a visitor to all portions of the Indo-Burmese countries.

The birds I met with were feeding on the ground; and I did not observe any thing peculiar about their habits. Dr. Jerdon says it is very partial to bamboo-jungles, and that its flight is rapid.

6. GEOCICHLA DIXONI.

DIXON'S THRUSH.

Oreocincla mollissima, *apud Wald. in Bl. B. Burm.* p. 100; *Hume & Dav. S. Feath.* vi. p. 256; *Wardlaw Ramsay, Ibis*, 1877, p. 463. *Geocichla dixonii*, *Seebohm, Cat. Birds B. Mus.* v. p. 100.

Description.—*Male and female.* The whole upper plumage olive-brown, the edges of the feathers obsoletely darker and the shafts of the frontal feathers pale; lesser wing-coverts the same olive-brown; median and greater coverts dark brown, edged with buffy brown and tipped with large buff spots; quills dark brown, edged with buffy brown; the central two pairs of tail-feathers plain brown; the next two pairs brown on the outer webs and very dark brown on the inner, and very minutely tipped with white; the next pair very dark brown on both webs, and tipped rather largely with white; the outermost pair light brown, edged with dark brown on the inner web and tipped very broadly with white, which runs up the web for nearly two inches; chin and centre of the throat white; sides of the throat and head white, each feather edged at the end with brown; breast, upper abdomen and sides of the body white, each feather with a large crescentic black tip, in front of which the feather is fulvous; lower abdomen, vent and under tail-coverts white; axillaries white, tipped with black.

Iris brown; bill brown; gape yellowish; legs dull brownish yellow. (*Wardlaw Ramsay.*)

Length about 10·5 inches, tail 4·7, wing 5·5, tarsus 1·45, bill from gape 1·2.

This species is allied to *G. mollissima* of the Himalayas, and differs from it in having a much longer tail, in having a double series of buff spots on the wing-coverts, and in having the colour of the upper plumage olive-brown instead of russet-brown.

My description is taken from a specimen shot by Capt. Wardlaw Ramsay in Karennee.

Dixon's Thrush has long been confounded with *G. mollissima*; and it is not possible to determine its geographical distribution. Capt. Wardlaw Ramsay procured it in Karennee at 5000 feet elevation; and in the British Museum there is a specimen from Nipal, and another from Darjeeling.

Mr. Seebohm states that it breeds in the Himalayas, descending to the plains in the cold season as far as Central India.

Genus ZOOTHERA, Vigors.

7. ZOOTHERA MARGINATA.*

THE LONG-BILLED GROUND-THRUSH.

Zoothera marginata, *Bl. J. A. S. B.* xvi. p. 141 n; *Hume, Nests and Eggs*, p. 226; *Bl. & Wald. B. Burm.* p. 100; *Hume & Davison, S. Feath.* vi. p. 246; *Hume, S. F.* viii. p. 94; *Bingham, S. F.* viii. p. 195. *Geocichla marginata*, *Seebohm, Cat. Birds B. Mus.* v. p. 162.

Description.—*Male and female.* General colour of the upper plumage rufescent olive-brown, dark and dull on the head, very bright on the outer webs of the feathers of the wing, the coverts with buff tips; inner webs of the quills and primary-coverts dark brown; lores and sides of the head mixed white and black, the black preponderating on the ear-coverts; chin, throat and a line down the neck pure white; breast and abdomen brown, each feather with a large white drop in the centre; sides of breast, body and flanks brown, with broad white shaft-lines, becoming broader towards the abdomen; under tail-coverts buffy white, broadly margined with brown; axillaries buffy white at base and brown at tips; tail uniform rufescent olive-brown.

The legs and feet varied from dark brown to pale bluish brown; the claws pale horny; the upper mandible and lower mandible from tip to angle of gonys from black to very dark horny brown; rest of lower mandible reddish to bluish fleshy; gape yellowish or fleshy white; irides deep hair-brown. (*Davison.*)

Length 10 inches, tail 3, wing 4·9, tarsus 1·1, bill from gape 1·5. The sexes appear to be of the same size.

The Long-billed Ground-Thrush appears to be sparingly distributed over the whole of British Burmah. I procured one specimen on the

* Although following Mr. Seebohm in the genera of the Thrushes, I find it impossible to include this bird in *Geocichla*.

Arrakan hills, where Mr. Blyth first got it I believe. I have not observed it in Pegu. Capt. Wardlaw Ramsay shot it in Karennee at elevations from 1500 to 3000 feet. Mr. Davison met with it in Tenasserim near Pahpoon and Mooleyit mountain, where it appears to have been rare. Capt. Bingham records it from the Thoungyeen valley, where he procured one specimen.

It inhabits the Himalayas from Sikhim to Assam, and it has been observed in the Khasia hills. In the British Museum are specimens labelled as having come from Upper India and Siam; but I do not think these labels trustworthy.

Wherever this Thrush occurs it is probably a resident. Its food consists of insects and, like most Thrushes, it feeds principally on the ground.

Genus MONTICOLA, *Boie*.

8. MONTICOLA CINCLORHYNCHUS.

THE BLUE-HEADED ROCK-THRUSH.

Petrocincla cinclorhyncha, *Vigors*, *P. Z. S.* 1831, p. 172. **Orocetes cinclorhynchus**, *Jerd. B. Ind.* i. p. 515. **Petrophila cinclorhynchus**, *Hume, Nests & Eggs*, p. 227; *id. S. F.* viii. p. 94; *Scully, S. F.* viii. p. 282. **Orocoetus cinclorhynchus**, *Bl. B. Burm.* p. 99. **Monticola cinclorhyncha**, *Seebohm, Cat. Birds B. Mus.* v. p. 320.

Description.—*Male*. Head, from the nostrils to the nape, and the lesser wing-coverts, the chin, throat and cheeks cobalt-blue; lores, under the eye, ear-coverts, sides of neck, back and scapulars black; primaries black, all but the first two edged exteriorly with blue; secondaries black, with a white patch on the outer webs; tertiaries wholly black; greater coverts black, edged with faint blue; rump, upper tail-coverts and lower plumage, with the axillaries and under wing-coverts, pale chestnut; tail blackish, edged faintly on the outer webs with bluish.

Female. The whole upper plumage is olive-brown tinged with ochraceous, especially on the rump and upper tail-coverts, which are also barred with black; wings brown, ochraceous on the outer web, and the tertiaries and later secondaries margined with white; chin and throat nearly white; sides of the head mottled with white and brown; remainder of lower plumage white, tinged with ochraceous on the breast, and the whole barred with dark brown.

The *young* resemble the female, but vary a great deal according to age. Bill brownish black, the gape bright yellow; tarsi dusky slaty; the toes brownish black; claws blackish horny. (*Scully*.)

Length 7·5 inches, tail 2·8, wing 4, tarsus 1, bill from gape 1·1.

The Blue-headed Rock-Thrush is recorded from Arrakan by Mr. Blyth; and I can find no other instance of its occurrence in Burmah.

It inhabits the Himalayas during the summer, from Assam up to Cashmir. During the winter it descends into the plains, and has been found as far south as Travancore. It probably inhabits the hill-ranges of the Indo-Burmese countries.

According to Dr. Scully it is found in Nepal on the hill-sides only, and seems to frequent by preference little dry nullahs overgrown with bushes and small trees. It breeds in the Himalayas.

9. MONTICOLA ERYTHROGASTER.

THE CHESTNUT-BELLIED ROCK-THRUSH.

Turdus erythrogaster, *Vigors*, *P. Z. S.* 1831, p. 171. **Orocetes erythrogastra**, *Jerd. B. Ind.* i. p. 514; *Wardlaw Ramsay*, *P. Z. S.* 1876, p. 677; *Hume & Dav. S. F.* vi. p. 250; *Wardlaw Ramsay*, *Ibis*, 1877, p. 463. **Petrophila erythrogaster**, *Hume*, *Nests and Eggs*, p. 227; *id. S. F.* viii. p. 94; *Scully*, *S. F.* viii. p. 282. **Monticola erythrogaster**, *Dav. et Oust. Ois. Chine*, p. 159; *Seebohm*, *Cat. Birds B. Mus.* v. p. 325.

Description.—*Male*. Whole upper plumage cobalt-blue, more or less dusky, and occasionally blackish, on the back; wings black, all but the first two primaries blue on the outer web; lores, cheeks and ear-coverts black; chin and throat dusky blue; remainder of lower plumage with the axillaries and under wing-coverts bright chestnut; tail blue, turning to dusky on the inner webs.

Female. Upper plumage brown, the rump, lower back and upper tail-coverts barred with black; wings brown, each feather edged with dusky white; chin and a line down the throat buff; a spot on the side of the neck fulvous; sides of the head blackish, with pale central streaks; under plumage buffy, barred with black; axillaries buff, barred with black; tail uniform brown.

Young birds are clothed like the female; but at first the wing-coverts and the whole back are barred with black like the rump. These bars gradually disappear. The variations of colour in the young are very great. A young male in the Seebohm collection, with a few traces of blue on the black, is coloured like an adult female, but has a large buff patch on the lower throat. Another, with a good deal of blue on the black, has the whole head and back marked with large triangular spots of buffy white, the tips of the upper tail-coverts are deep chestnut, and the greater portion of the lower body has turned to chestnut. It was procured in August.

Bill black; gape yellow; irides dark brown; feet vinous brown or black; claws blackish: *female*—bill dusky; mouth and gape yellow; irides brown; tarsi dark brown; the toes blackish. (*Scully*.)

Length 9·4 inches, tail 4·2, wing 4·9, tarsus 1·1, bill from gape 1·2. The female is rather smaller.

The Chestnut-bellied Rock-Thrush is stated by Capt. Wardlaw Ramsay to have been obtained by him on the hills east of Tonghoo. There is no other record of its appearance in British Burmah.

It inhabits the Himalayas, from Kumaon to Assam. Dr. Jerdon procured it in the Khasia hills, and Col. Godwin-Austen in North Cachar. It ranges eastwards to Setchuen in Western China.

It breeds in the Himalayas, and it is probably a non-migratory species, as I can find no record of its occurrence in the plains. It frequents high forest and feeds on the ground.

10. MONTICOLA CYANUS.

THE BLUE ROCK-THRUSH.

Turdus cyanus, *Linn. Syst. Nat.* i. p. 296. **Petrocossyphus cyaneus**, *Jerd. B. Ind.* i. p. 511; *Hume & Henders. Lah. to Yark.* p. 190; *Sharpe & Dresser, B. Eur.* ii. p. 139; *Bl. B. Burm.* p. 99; *Wardlaw Ramsay, Ibis*, 1877, p. 463. **Cyanocinclia cyana**, *Hume, Nests & Eggs*, p. 226; *id. S. F.* iii. p. 112; *Hume & Dav. S. F.* vi. p. 247; *Hume, S. F.* viii. p. 94; *Scully, S. F.* viii. p. 282. **Monticola cyanus**, *Anders. Yunan Exped.* p. 611; *Legge, Birds Ceyl.* p. 460; *Seeböhm, Cat. Birds B. Mus.* v. p. 316.

Description.—In the *adult male in breeding-plumage* the general colour is dark slate-grey, suffused with metallic cobalt-blue, most so on the head and least so on the under tail-coverts; lores dark slate-grey; wings, wing-coverts and tail dark brown, the outer web of each feather margined with blue; under tail-coverts with white tips and obscure subterminal dark bars. *After the autumn moult* most of the feathers have narrow greyish-white margins, those of the upper parts with obscure brown subterminal bars, and those of the underparts with darker brown subterminal bars, almost obsolete on the chin and throat; these marginal and subterminal bars are cast during March, leaving the male in full breeding-plumage.

The *female* somewhat resembles the autumn plumage of the male, but is much more brown, being far less suffused with blue; the whole of the underparts are pale whitish brown, slightly suffused with blue on the breast and belly, each feather having a dark-brown subterminal transverse band, which on the throat is continued on the margins of the feathers; the axillaries and under wing-coverts have several transverse dark bars.

Birds of the year and young in first plumage differ from the female very slightly. (Seebohm.)

Iris hazel ; eyelids plumbeous ; bill blackish horn ; mouth yellow ; feet black ; claws dark horn.

Length 9 inches, tail 3·5, wing 4·7, tarsus 1·1, bill from gape 1·2. The female is a trifle smaller.

There are two extreme forms of this Blue Rock-Thrush. The western form, inhabiting Europe and a great part of Asia, is described above. The eastern form, *M. solitaria*, inhabiting Japan, China and South-east Asia, differs in having the lower breast, abdomen, flanks and under tail-coverts deep chestnut.

The majority of the birds found in British Burmah apparently belong to *M. cyanus*, being characterized by an absence of chestnut on the lower plumage. A considerable proportion of the birds, however, show traces of chestnut, and in one or two instances mentioned by Mr. Hume are in typical *M. solitaria* plumage.

These two forms evidently interbreed ; and some of the hybrids visit Burmah. It is difficult to know how to deal with such birds ; but I think that, having pointed out the state of things in Burmah, it is better to retain all under the name of the western form.

The subject has been very fully discussed by Messrs. Sharpe and Dresser, Mr. Hume and Mr. Seebohm.

The Blue Rock-Thrush is found abundantly over the whole of British Burmah during the cold season. It arrives in October, and leaves in March.

It ranges through India and Persia to Southern Europe, and in the winter visits North Africa. To the east of Burmah it is replaced by *M. solitaria*.

This Thrush is perhaps better known to residents in Burmah than any other. It frequents pagodas, monasteries, gardens and the neighbourhood of houses, frequently entering bungalows in a quiet unobtrusive manner, and sitting silently on a verandah-beam for some minutes ; it is frequently seen perched on old walls, and it feeds on the ground.

It nests in the Himalayas in stone walls and lays four eggs, pale blue speckled with brown.

Genus ERITHACUS, *Cuvier*.

11. ERITHACUS CYANE.

THE SIBERIAN BLUE ROBIN.

Motacilla cyane, *Pall. Reis. Russ. Reichs*, iii. p. 697. **Larvivora cyane**, *Wald. in Bl. B. Burm.* p. 101; *Dav. et Oust. Ois. Chine*, p. 238, pl. 27; *Hume & Dav. Str. Feath.* vi. p. 335; *Hume, S. F.* viii. p. 100. **Erithacus cyaneus**, *Seeböhm, Cat. Birds B. Mus.* v. p. 303. **Brachypteryx** vel **Callene** sp., *Beavan, Ibis*, 1870, p. 321; *Bl. B. Burm.* p. 101.

Description.—*Male*. The base of the bill, the lores and a line under the cheeks black; cheeks, ear-coverts and the whole upper plumage blue; wings and tail brown, washed with blue on the outer webs; the whole under plumage pure white, the flanks washed with brown.

The *female* has the whole lower surface white, washed with fulvous on the flanks and breast, the feathers of the latter also tipped slightly with brown; lores, cheeks and ear-coverts mingled fulvous and brown; the whole upper plumage, the wings and tail olive-brown.

The *young bird*, according to Mr. Hume, is like the female, but has the upper tail-coverts washed with blue.

Legs, feet and claws fleshy white; upper mandible in the male dark, in the female pale horny brown; lower mandible fleshy white or pale brown; gape fleshy white; one male had the upper mandible horny black; irides deep brown. (*Davison*.)

Length 5·6, tail 1·8, wing 2·8, tarsus 1·1, bill from gape ·7. The female is rather smaller.

The Siberian Blue Robin was found abundantly by Mr. Davison in Tenasserim, where it occurs in the better-wooded parts, not ascending the higher hills. I procured one specimen in Pegu at Kyeikpadein. It is of course only a winter visitor. It has also been obtained in Malacca.

This Robin has a wide range in Eastern Asia. It is found in summer in Siberia, from Lake Baical eastwards; and in winter it is spread over China, reaching to Borneo, and occasionally finding its way to Northern India.

It is replaced in India by an affined species, *E. brunneus*, which is chestnut below instead of white.

According to Mr. Davison this species keeps entirely to the ground, searching among dead leaves for its food, which is chiefly insects.

12. ERITHACUS CALLIOPE.

THE RUBY-THROATED ROBIN.

Motacilla calliope, *Pall. Reise Russ. Reichs*, iii. p. 697. **Turdus camtschatkensis**, *Gm. Syst. Nat.* i. p. 817. **Calliope kamschatkensis**, *Jerd. B. Ind.* ii. p. 150; *Bl. B. Burm.* p. 101; *Dresser, Birds of Europe*, ii. p. 341; *Hume & Dav. S. Feath.* vi. p. 337; *Anders. Yunan Exped.* p. 615; *Dav. et Oust. Ois. Chine*, p. 235; *Hume, S. F.* viii. p. 100; *Oates, S. F.* x. p. 213. **Erithacus calliope**, *Seeböhm, Cat. Birds B. Mus.* v. p. 305.

Description.—*Male.* The whole upper plumage olive-brown, the head darker, and all the feathers indistinctly edged paler; a line from the forehead over the eye white; lores and under the eye black; a broad moustachial streak white; throat and fore neck scarlet, each feather margined at the tip with white, and the whole patch bordered by black; upper breast brownish grey, paling and becoming buffy grey on the lower breast and sides of the body; abdomen and under tail-coverts white; tail brown, edged on the outer webs with olive-brown; wing-coverts and quills brown, edged with bright olive-brown; axillaries buff.

The *female* differs from the male. The superciliary streak is buffy white; lores and in front of the eye dusky brown; the bright scarlet of the throat and the surrounding black line are absent, and replaced by an impure white; the moustachial streak is olive-brown. The other parts are as in the male.

The *young* are clothed like the female at first, and the crimson throat-patch is assumed in the first winter without a moult.

Bill light brown, white at the gape; mouth flesh-colour; iris brown; legs pale plumbeous; claws horn-colour.

Length 6 inches, tail 2·4, wing 2·9, tarsus 1·15, bill from gape ·8. The female is the same size.

The Ruby-throated Robin is recorded from Arrakan by Mr. Blyth. I found it abundant in Pegu every year, during November, December and January, near Kyeikpadein, and in the plain lying to the west of the canal up to Myitkyo. Mr. Davison found it rare in Tenasserim and procured it only in the northern portions of the division. Capt. Feilden got one specimen at Thayetmyo, and Capt. Wardlaw Ramsay procured it in Karennee.

It is a winter visitor to India and China, and comes as far down as the Philippine Islands. It summers in Siberia, ranging to high latitudes.

This Robin is very common in Pegu wherever it occurs. It seeks shelter in the densest clumps of bushes and elephant-grass and is seldom seen. It keeps a good deal to the ground, where it seeks its food among dead leaves and herbage. It has a pretty song, which I occasionally heard.

13. ERITHACUS CÆRULECULUS.

THE ARCTIC BLUE-THROATED ROBIN.

Motacilla suecica, Linn. *Syst. Nat.* i. p. 336 (part.). **Motacilla cærulecula**, Pall. *Zoogr. Ross.-Asiat.* i. p. 480. **Cyanecula suecica**, Jerd. *B. Ind.* ii. p. 152; *Hume & Hend. Lah. to Yarkand*, p. 214; *Dresser, Birds of Europe*, ii. p. 317; *Bl. B. Burm.* p. 101; *Hume, S. Feath.* vii. p. 392, viii. p. 100; *Scully, S. F.* viii. p. 304; *Legge, Birds of Ceylon*, p. 443; *Oates, S. F.* x. p. 213. **Cyanecula cærulecula**, *Hume, S. F.* i. p. 190, ii. p. 234; *Dav. et Oust. Ois. Chine*, p. 234. **Erithacus cæruleculus**, *Seebohm, Cat. Birds B. Mus.* v. p. 308. **Erithacus suecica**, *Seebohm, Brit. Birds*, i. p. 269.

Description.—*Male.* Whole upper plumage with wings brown, the feathers of the head and back with darker centres; chin and throat bright blue, with a chestnut spot on the centre of the throat; below the blue a band of black and below this a broader band of chestnut; lores black; a stripe from the nostrils to the eye fulvous; cheeks and ear-coverts mixed fulvous and black; belly, flanks, vent and under tail-coverts buffish white; central tail-feathers brown, the others chestnut on the basal half, and brown on the terminal half.

The *female* has all the lower plumage buffish white, with a broad brown gorget across the breast.

It is seldom that the male is in the full plumage described above. The amount of blue and chestnut on the throat varies much; and sometimes there is nothing more than a few blue feathers to indicate that it is a male.

The *young* are coloured like the female.

Bill black, the base flesh-colour; iris brown; eyelids plumbeous; inside of mouth yellowish; legs dusky fleshy; claws brown.

Length 5·9 inches, tail 2·3, wing 2·9, tarsus 1·1, bill from gape ·75. The female is the same size.

The Arctic Blue-throated Robin has been recorded from Arrakan by Mr. Blyth. I have found it very abundant in Pegu every year, from the commencement of November to the middle of May, in that portion of the country lying between the Tonghoo road and the Sittang river, from Kyeikpadein up to Paghein. Mr. Davison found it rare in Tenasserim; but he procured it as far south as Tavoy.

This bird has a most extensive range. In summer it is found in Northern Europe and Asia; in the latter continent as far south as the Himalayas. In winter it migrates south, and ranges over the whole of Europe, North Africa and Southern Asia.

It appears to be a common bird in winter over the whole of India, Ceylon and the Andaman Islands, the Indo-Burmese countries and South China.

This pretty Robin, as far as I have observed it in Burmah, is confined to those tracts of land which are covered with dense elephant-grass. It keeps to the ground, running swiftly and for short distances on cart-roads, bare places and dry nullahs. It has the habit of elevating its tail immediately it ceases to run, and of depressing it when running.

Genus RUTICILLA, *C. L. Brehm.*

14. RUTICILLA AUROREA.

THE DAURIAN REDSTART.

Motacilla aureora, *Gm. Syst. Nat.* i. p. 976. *Ruticilla aureora*, *Jerd. B. Ind.* ii. p. 139; *Wald. in Bl. B. Burm.* p. 101; *Hume, S. Feath.* iii. p. 135; *Dav. et Oust. Ois. Chine*, p. 170, pl. 26; *Seebohm, Cat. Birds B. Mus.* v. p. 345.

Description.—*Male.* A narrow line on the forehead, the lores, cheeks, ear-coverts, chin and throat black; remainder of lower surface with the axillaries and under wing-coverts deep chestnut; head, nape and upper back slaty grey, most of the feathers slightly tipped with brown; back, scapulars and wing-coverts black, in many cases the feathers margined with grey; rump and upper tail-coverts chestnut; tail chestnut, except the central pair and the terminal half of the outer web of the outer pair of feathers, which are black; wing very dark brown, nearly black on the secondaries, which have a large white patch at the base of each feather.

The *female* is very different to the male; the whole underparts are light brown, tinged with rufous on the vent and under tail-coverts; head, sides of head and neck, back and scapulars olive-brown; rump and upper tail-coverts chestnut; wings and wing-coverts brown, each feather margined paler, and the spot on the secondaries smaller than in the male; tail chestnut, with those parts brown which are black in the male.

Bill and feet black. (*Jerdon.*)

Length 5·75 inches, tail 2·5, wing 2·9, tarsus ·9, culmen ·6.

The Daurian Redstart is a winter visitor to Burmah. Capt. Feilden procured only one specimen at Thayetmyo, and there is no further record of its occurrence in British Burmah.

In the winter it also visits the South-eastern Himalayas, Bootan, Assam and Eastern Bengal. It has been found in the Malay peninsula, Java and Timor.

It has its summer home in South-east Siberia, Mongolia, North China and Japan.

Little or nothing is recorded of its habits.

Subfamily MYIOTHERINÆ.

Genus MYIOPHONEUS, *Temm.*

15. MYIOPHONEUS EUGENEI.

THE BURMESE WHISTLING-THRUSH.

Myiophoneus eugenei, *Hume*, *S. F.* i. p. 475, iii. p. 106, v. p. 113 n; *Hume & Dav.* *S. F.* vi. p. 236; *Hume*, *S. F.* viii. p. 93; *Bingham*, *S. F.* ix. p. 176.

Description.—*Male and female.* Like the next species, *M. temmincki*, but wanting the whitish tips to the median wing-coverts.

Bill orange-yellow, the region of the nostrils and a portion of the culmen dark brown; mouth yellow; iris umber-brown; eyelids straw-yellow; legs black.

Length 13·5 inches, tail 5·4, wing 7·2, tarsus 2·3, bill from gape 1·65. The female is smaller.

This species differs from *M. temmincki* not only in the character pointed out above, but also in having a very much larger bill, which is almost entirely yellow.

The Burmese Whistling-Thrush is found in the whole of Pegu east of the Irrawaddy, wherever there are rocky nullahs. Captain Wardlaw Ramsay observed it in the Karin hills. According to Mr. Davison, it is confined in Tenasserim to the hills and isolated limestone rocks of the northern and central portions only. Captain Bingham records it from the Thoungyeen valley. It is also said to occur in Siam.

This beautiful Thrush is abundant in rocky hill-streams, going about singly or in couples. It feeds largely on land-shells which it breaks to pieces against rocks in the nullah, and large heaps of fragments of shells may usually be seen where these birds abound. It has a fine whistling series of notes. Capt. Bingham has favoured me with an account of the finding of the nest of this species in the Thoungyeen valley. As no account of the nest or eggs has ever been published, I have much pleasure in giving Capt. Bingham's interesting account in full.

“On the 16th April I was crossing the Mehkhaneh stream, a feeder of the Meh-pa-leh, the largest tributary of the Thoungyeen river, near its source, where it is a mere mountain-torrent brawling over a bed of rocks strewed with great boulders. A small tree, drifted down by the last rains, had caught across two of these and being jammed in by the force of the water, had half broken across, and now formed a sort of temporary V-shaped dam, against which pieces of wood, bark, leaves and rubbish had collected, rising some six inches or so above the water, which found an exit below

the broken tree. On this frail and tottering foundation was placed a round solid nest about nine inches in diameter, made of green moss and lined with fine black roots and fibres, in which lay four fresh eggs of a pale stone-colour, sparsely spotted, especially at the larger ends, with minute specks of reddish brown. Determined to find out to what bird they belonged, I sent my followers on and hid myself behind the trunk of a tree on the bank and watched, gun in hand. In about twenty minutes or so a pair of *Myiophoneus eugenei* came flitting up the stream and, alighting near the nest, sat for a time quietly. At last one hopped on to the edge of the nest and after a short inspection sat down over the eggs with a low chuckle. I then showed myself and, as the birds flew off, fired at the bird that had been on the nest, but unfortunately missed. I was satisfied, however, about the identity of the eggs and took them. In shape they are somewhat like those of *Pitta*, and measure 2.45×1.02 , 1.50×1.02 , 1.46×1.01 , and 1.50×1.01 ."

16. MYIOPHONEUS TEMMINCKI.

THE HIMALAYAN WHISTLING-THRUSH.

Myiophonus temminckii, *Vigors*, *P. Z. S.* 1831, p. 171; *Jerd. B. Ind.* i. p. 500; *Hume, Nests and Eggs*, p. 221; *Hume & Henders. Lah. to Yark.* p. 187; *Hume, S. F.* ii. p. 331; *Bl. & Wald. B. Burm.* p. 98; *Hume, S. F.* iii. p. 105; *Hume & Dav. S. F.* vi. p. 236; *Hume, S. F.* viii. p. 93; *Scully, S. F.* viii. p. 281.

Description.—*Male and female.* The whole plumage blue, each feather tipped with brighter blue; the wings and tail overlaid with cobalt on the outer webs; lesser wing-coverts black, with broad margins of glistening blue; median wing-coverts with whitish tips.

Bill yellow, the culmen and the base of the upper mandible blackish; iris brown; feet and claws black.

Length 13.5 inches, tail 5.5, wing 7, tarsus 2.1, bill from gape 1.55. The female is smaller.

The Himalayan Whistling-Thrush has hitherto only been found on the Arrakan hills and its spurs, nearly down to the Irrawaddy. To the east of that river it is replaced by the preceding species, but Capt. Wardlaw Ramsay appears to have procured both species in the Karin hills.

It probably is found in all the Indo-Burmese countries. It is known to occur in the hill-tracts of Eastern Bengal and it extends throughout the whole range of the Himalayas from Assam to the Indus, wandering in the cold weather some distance out into the plains. It appears to be a resident throughout the year wherever it occurs. Its habits are those of the last species.

Genus BRACHYPTERYX, *Horsf.*

17. BRACHYPTERYX NIPALENSIS.

THE WHITE-BELLIED SHORT-WING.

Brachypteryx nipalensis (*Hodgs.*), *Moore*, *P. Z. S.* 1854, p. 74; *Jerd. B. Ind.* i. p. 494; *Hume & Dav. S. F.* vi. p. 236; *Hume*, *S. F.* viii. p. 93.

Description.—*Male.* Upper plumage, sides of head and neck dull cyaneous; lores black bordered above by white, which is produced back over the eye; tail duller blue; wings brown, tinged with bluish on the outer webs; chin and throat white; breast ashy brown; abdomen, vent and under tail-coverts white; sides of abdomen and flanks dull blue.

Female. Upper plumage, wings and tail rusty brown, the inner webs of the wing-quills plain brown; lores whitish; a patch over the lores and eye white; lower plumage whitish, tinged with rusty on the breast, sides of body and flanks.

The *young* are like the female.

Bill dark horny; legs pale brown; irides light brown.

Length 4·5 inches, wing 2·5, tail 1·4, bill at front ·5; another was 5 inches long and the tail 1·5. (*Jerdon.*)

The White-bellied Short-wing was found by Mr. Davison near the summit of Mooleyit mountain in Tenasserim, where it was common. Strange to say, all the birds procured by him (males) were in the plumage of the females, and were probably young.

It has been found in the Khasia hills and in Sikhim and Nipal.

According to Mr. Davison, they keep entirely to the ground, hopping about amongst dead leaves and moss or on fallen trunks, picking up insects. They are found only in dense forests—by preference on the banks of streams.

18. BRACHYPTERYX CRURALIS.

THE WHITE-BROWED SHORT-WING.

Calliope cruralis, *Bl. J. A. S. B.* xii. p. 933. **Brachypteryx cruralis**, *Jerd. B. Ind.* i. p. 495; *Hume*, *Nests and Eggs*, p. 219; *Wald. in Bl. B. Burm.* p. 99; *Hume*, *S. F.* viii. p. 93.

Description.—*Male.* The whole plumage dull blue, the wing-quills being mostly dull bluish brown on the outer webs and pale brown on the inner; centre of the abdomen mixed with ashy; lores black bordered above by white, which colour is produced back over the eye.

Female. Forehead, lores and round the eye ferruginous ; upper plumage, sides of head and neck olive-brown ; wings and tail rusty brown ; lower plumage ashy brown, tinged with rufous on the under tail-coverts and flanks.

The *young males* are like the females at first ; the lores soon change to black and the white supercilium is acquired before any blue feathers appear.

Bill black, legs pale brownish. Length 5.25 inches, wing 2.6, tail 1.75, tarsus 1.25, bill at front .62. (*Jerdon.*)

The White-browed Short-wing was procured by Capt. Wardlaw Ramsay in Karennee, at an elevation of 5000 feet.

It has been observed in Munipoor and the Khasia hills, and, according to Dr. Jerdon, it is found in Nipal and Sikhim. Little is known of its habits. Mr. Hodgson describes the nest as made of moss, globular in shape and rather bulky ; it is placed about one foot from the ground, amongst grass and creeping plants at the base of trunks of trees. The eggs are white.

Genus COPSYPHUS, *Wagler.*

19. COPSYPHUS SAULARIS.

THE INDIAN MAGPIE-ROBIN.

Gracula saularis, *Linn. Syst. Nat.* i. p. 165. *Copsychus saularis*, *Jerd. B. Ind.* ii. p. 114 ; *Hume, Nests and Eggs*, p. 303 ; *Hume & Henders. Lah. to Yark.* p. 202 ; *Hume, S. F.* ii. p. 230, iii. p. 133 ; *Bl. B. Burm.* p. 100 ; *Dav. et Oust. Ois. Chine*, p. 174 ; *Oates, S. F.* v. p. 157 ; *Hume & Dav. S. F.* vi. p. 332 ; *Anders. Yunnan Exped.* p. 613 ; *Legge, Birds Ceylon*, p. 433 ; *Hume, S. F.* viii. p. 99.

Description.—*Male.* The whole head, neck, breast and upper plumage glossy black ; abdomen, sides of the body, vent and under tail-coverts white ; wing black, the last two secondaries chiefly white on the outer webs, the lesser and median coverts and the outer webs of the later greater coverts also white ; the central two pairs of tail-feathers black, the others white, the fourth pair from the outside being usually black at the base, and the margins also black ; the amount of white and black on the third and fourth pairs varies much in different individuals ; under wing-coverts and axillaries pure white.

The *female* has the tail and wings as in the male, but browner ; chin, throat, sides of the neck and the breast dark grey ; forehead, lores and cheeks mottled white and grey ; the whole upper plumage uniform dark brown, glossed with bluish ; sides of body, vent and under tail-coverts pale fulvescent ; centre of the abdomen whitish ; under wing-coverts white.

The *young* have the breast spotted with fulvous, and the upper plumage brown.

Bill black; mouth flesh-colour; eyelids plumbeous; iris hazel-brown; legs dark plumbeous; claws horn-colour.

Length 8·2 inches, tail 3·6, wing 3·7, tarsus 1·15, bill from gape 1. The female is considerably smaller.

The Indian Magpie-Robin is spread over the whole of British Burmah down to the southern extremity of Tenasserim, where it meets the next species. Captain Wardlaw Ramsay also met with it in Karennee.

Out of British Burmah it has a very wide range. It is spread throughout Southern China as far as Hainan. It occurs commonly in all the Indo-Burmese countries and over the whole peninsula of India, including Ceylon and the Andaman Islands.

This bird is well known to all residents in Burmah on account of its familiar habits and pleasing song. It is usually found near villages and houses, but there are few places even in the forests where a pair may not be met with. It is essentially, however, a bird which courts the presence of man.

It begins to breed in Pegu in April, placing its nest, which is merely a mass of leaves lined with grass, in a hole of a tree or in a bamboo, or even on a beam of a verandah. It never builds in bushes in Burmah, as it is asserted it does elsewhere. The eggs are usually four in number and are pale green, streaked and blotched with reddish brown.

20. COPSYPHUS MUSICUS.

THE MALAYAN MAGPIE-ROBIN.

Lanius musicus, *Raffles, Trans. Linn. Soc.* xiii. p. 307. **Copsychus musicus** *Wald. Ibis*, 1872, p. 102; *Tweedd. Ibis*, 1877, p. 309; *Hume & Dav. S. F.* vi. p. 333; *Hume, S. F.* viii. p. 99. **Copsychus mindanensis**, *apud Salvad. Ucc. Born.* p. 254. **Copsychus problematicus**, *Sharpe, Ibis*, 1876, p. 36.

Description.—Quite similar to *C. saularis*, but differing in the under wing-coverts and axillaries being white centred with black, whereas in *C. saularis* these parts are pure white. The females of *C. musicus* are also much darker in colour than the females of *C. saularis*.

The dimensions and colours of the soft parts are the same as in *C. saularis*.

Although the differences pointed out between these two species are very slight, they hold good when a series of each species is examined. It is

therefore advisable to keep them distinct, especially as their geographical distribution is pretty well defined.

The Malayan Magpie-Robin is found in the extreme south of Tenasserim, where it is associated with the preceding species.

It extends into Siam and down the Malay peninsula, and is found in the islands of Sumatra, Java and Borneo, in which latter island *C. pluto* (a species with the whole of the under wing-coverts black) is also found.

Genus CITTOCINCLA, Gould.

21. CITTOCINCLA MACRURA.

THE SHAMA.

Turdus macrourus, Gm. *Syst. Nat.* i. p. 820. **Kittacincla** * **macroura**, Jerd. *B. Ind.* ii. p. 116; *Wald. Ibis*, 1871, p. 175; *Bl. B. Burm.* p. 100; *Dav. et Oust. Ois. Chine*, p. 175; *Tweedd. Ibis*, 1877, p. 309; *Legge, Birds Ceylon*, p. 437. **Cercotrichas macrurus**, Hume, *Nests and Eggs*, p. 306; *id. S. F.* iii. p. 134; *Oates, S. F.* v. p. 157; *Hume & Dav. S. F.* vi. p. 333; *Hume, S. F.* viii. p. 96; *Bingham, S. F.* ix. p. 184; *Sharpe, Ann. Nat. Hist.* 1882, ser. 5, vol. x. p. 48.

Description.—*Male.* Head, neck, upper breast, back, scapulars, wing-coverts and tertiaries glossy black; rump and upper tail-coverts white; lower breast, abdomen, sides, flanks and under tail-coverts chestnut; thighs white; winglet, primaries, their larger coverts and the secondaries blackish brown; the central pair of tail-feathers black, the others black with broad white tips.

The *female* has the black of the male replaced by brown; the quills and the larger wing-coverts are edged with ferruginous, and the chestnut of the lower parts is duller.

Bill black; legs pale flesh-colour; claws light horn-colour; mouth flesh-colour; eyelids plumbeous; iris dark brown.

Length 11 inches, tail 6, wing 3·7, tarsus 1·1, bill from gape ·95. The female is smaller, and has the tail an inch shorter.

Mr. Sharpe (*l. c.*) has made out a case for calling this bird by Vieillot's name *C. tricolor*; but I think that Gmelin's name, having now for so many years been applied to the Indian bird, should be retained.

The Shama is spread abundantly over the whole of British Burmah and Karennee wherever there is thick jungle.

To the south it extends down the Malay peninsula, and is found in the

* This name is variously spelt *Kittacincla*, *Cittacincla*, *Cittocincla*, by the authors quoted.

islands of Sumatra and Java. It is also found in China, the Indo-Burmese countries and the whole of the peninsula of India with Ceylon. In the Andamans it is replaced by an affined species, *C. albiventris*.

This bird is a most charming songster, and its beautiful notes may be heard almost throughout the year. It frequents almost every description of jungle, being more especially partial perhaps to bamboos. They feed principally on the ground and eat insects. They nest about April, and I have frequently found the eggs in Pegu. The nest is a mass of leaves thrown into a hole of a tree and lined on the top with grass, and the number of eggs is usually four.

Genus MYIOMELA, *Hodgs.*

22. MYIOMELA LEUCURA.

THE WHITE-TAILED BLUE-CHAT.

Muscisylvia leucura, *Hodgs. P. Z. S.* 1845, p. 27. **Myiomela leucura**, *Jerd. B. Ind.* ii. p. 118; *Bl. & Wald. B. Burm.* p. 100; *Hume, S. F.* v. p. 103; *Hume & Dav. S. F.* vi. p. 334; *Hume, S. F.* viii. p. 99. **Notodela leucura**, *Hume, Nests and Eggs*, p. 306.

Description.—*Male.* Forehead, over the eye and the lesser wing-coverts bright smalt-blue; the whole plumage black, washed with blue; the throat, breast and abdomen almost plain black; the bases of some of the feathers on the side of the neck white, but barely showing unless the feathers are moved; wings black, with indistinct bluish edges; tail black, all the feathers except the outer and central pairs with a large patch of white on the outer webs near the base, increasing in size inwardly.

The *female* is entirely of a dull rufous-brown, the wings edged brighter, and the throat, cheeks and forehead mottled with grey; the tail has white patches like the male, disposed in the same manner.

Bill, legs, feet and claws black; irides deep brown. (*Davison.*)

Length 7 inches, tail 3, wing 3·8, tarsus 1·1, bill from gape ·9. The female is rather smaller.

M. montium, from Formosa, can hardly be separated from *M. leucura*. It has the lower plumage slightly more suffused with blue, but differs in no other respect. *M. albifrons*, from Java, has a patch of white on the forehead, and the white on the tail is much reduced; it does not otherwise differ from *M. leucura*. It appears to be the *Notodela diana* of Lesson, said to have been procured in Pegu but probably by an error.

The White-tailed Blue-Chat has been procured on the higher slopes of

Mooleyit, in Tenasserim, at elevations of 3500 feet and upwards. Capt. Wardlaw Ramsay also procured it in Karennee. It has occurred in the Khasia hills, and it extends all along the Himalayas, at high altitudes, from Sikhim to Mussooree.

This Chat appears to be rare on Mooleyit. Mr. Davison observes that he generally met with it singly and on the ground; and when disturbed it would fly to some branch, and expand and close its tail rapidly. It feeds on insects and is a very silent bird.

Wherever found, this species appears to be resident. The nest, a cup-shaped structure made of moss, is, according to Mr. Hodgson, placed on the ledge of a rock in low jungle and brushwood.

Genus CHÆMARRORNIS, *Hodgs.*

23. CHÆMARRORNIS LEUCOCEPHALUS.

THE WHITE-CAPPED REDSTART.

Phœnicura leucocephala, *Vigors*, *P. Z. S.* 1830, p. 35. *Chæmarrornis leucocephalus*, *Jerd. B. Ind.* ii. p. 143; *Hume & Henders. Lah. to Yark.* p. 214; *Bl. B. Burm.* p. 101; *Dav. et Oust. Ois. Chine*, p. 173, pl. 24; *Anders. Yunnan Exped.* p. 613; *Hume, S. F.* viii. p. 100; *Scully, S. F.* viii. p. 303.

Description.—*Male and female.* Crown and nape white; with this exception, the whole head and neck with the breast, back and the whole of the wings black; rump, upper tail-coverts, abdomen, flanks and under tail-coverts bright chestnut; tail chestnut, broadly tipped with black.

Bill black; gape fleshy white; irides deep brown; feet blackish brown; claws black. (*Scully.*)

Length 7 inches, tail 3·5, wing 3·8, tarsus 1·2, bill from gape ·8. The female is rather smaller.

The White-capped Redstart is said by Mr. Blyth to have occurred in Arrakan. It does not appear to have ever been recorded from any other part of British Burmah.

Dr. Anderson procured it near Bhamo, and it also occurs in the hill-ranges of Eastern Bengal. It is found throughout the Himalayas, from Assam to Afghanistan, as a winter visitor. It extends into China, and is recorded from the Upper Yangtze river. It probably nests in Central Asia and in Cashmir.

The White-capped Redstart is found on the banks of rivers and streams, where it picks up insects near the water. It flits and expands its tail constantly when feeding, and appears to have all the habits of the Redstarts.

Genus HENICURUS, *Temm.*

24. HENICURUS IMMACULATUS.

THE WHITE-BREASTED FORKTAIL.

Enicurus immaculatus, *Hodgs. As. Res.* xix. p. 190; *Jerd. B. Ind.* ii. p. 213; *Hume, S. F.* iii. p. 141. **Henicurus immaculatus**, *Elwes, Ibis*, 1872, p. 254; *Bl. B. Burm.* p. 97; *Anders. Yunnan Exped.* p. 610; *Hume, S. F.* viii. p. 103.

Description.—*Male and female.* Forehead and a narrow line over and behind the eye white; the plumes at the base of the bill, the lores, face, sides of neck, chin, throat, summit of head and neck, and the back deep black; rump, upper tail-coverts and whole lower plumage white, the feathers at the sides of the breast being tipped with black; axillaries and under wing-coverts white; primaries black, the later ones with a white patch at the base of the outer webs; secondaries and tertiaries black, tipped white, the basal third of each feather also white; wing-coverts black, the larger ones broadly tipped white; the two outer pairs of rectrices white, the others black, broadly tipped with white, and the bases of the feathers also white as far as the tips of the upper tail-coverts.

The *young* have the head, neck, back and breast sooty black, and there is no white on the forehead and about the eyes.

Bill and inside of mouth black; irides brown; feet and claws pale yellowish white.

Length 9·8 inches, tail 5·3, wing 4, tarsus 1·2, bill from gape ·95. The female is smaller.

The White-breasted Forktail is found over the whole of the Pegu hills on both sides of the ridge, and is very abundant. It is also very common in Arrakan in all the mountain-streams. Mr. Blyth gives it from Tenasserim; but Mr. Davison did not meet with it in that division. Probably the Sittang river is its eastern limit.

It ranges through the Indo-Burmese countries to the hill-tracts of Eastern Bengal, Sikhim and Nipal.

The White-breasted Forktail frequents rocky hill-streams where there is water in pools. It walks on the edges of these pieces of water, searching for insects and wagging its tail up and down incessantly. It has a low wavy flight and is a beautiful object when on the wing.

It breeds in April placing its cup-shaped nest, which is constructed entirely of moss bound together with earth, on a bank of a stream either under a rock or among tree-roots, or even on a log of wood which may have been caught in the stream during the past rains. The eggs are usually three in number and are pale greenish blotched with reddish brown.

All the birds of this genus have the same habits.

25. HENICURUS GUTTATUS.

GOULD'S SPOTTED FORKTAIL.

Enicurus guttatus, Gould, P. Z. S. 1865, p. 664; Oates, S. F. iii. p. 342.

Henicurus guttatus, Elwes, Ibis, 1872, p. 261; Bl. B. Burm. p. 97; Hume, S. F. vii. p. 399, viii. p. 103; Scully, S. F. viii. p. 311.

Description.—*Male and female.* Forehead as far back as the eyes white; the chin, throat, breast, upper abdomen, lores, cheeks, ear-coverts, top of the head and sides of the neck deep black; the back of the neck, the back and shoulders black, the feathers of the nape each with a large central drop of white and those of the back each with a small circular spot of white at the tip; rump, upper tail-coverts, flanks, lower abdomen, vent and under tail-coverts pure white; lesser wing-coverts black; larger wing-coverts black, broadly tipped with white; quills black, all, except the first three, with a white patch at the base, and the tertiaries and later secondaries tipped white; under wing-coverts mixed white and black; the four outer pairs of tail-feathers black, tipped with white, the two outer pairs wholly white.

The *young* are probably like the young of *H. maculatus*. The white on the forehead is absent and there are no spots on the back. Those parts which are black in the adult are in the young rufous-brown, the feathers of the lower parts being conspicuously pale-shafted and the parts adjacent to the shaft whitish.

Bill black; irides dark brown; feet pale whitish fleshy. (*Scully*.)

Length 9·5 inches, tail 5·2, wing 4, tarsus 1·1, bill from gape ·95. The female is about the same size.

Gould's Forktail has been observed in Arrakan only, whence Mr. Blyth records it. I procured it at Nyoungyo near the summit of the Arrakan hills, and I have no doubt it is common there.

It has been observed in the Khasia hills, in Sikhim and in Nipal up to an elevation of about 7000 feet. It commences to nest about the middle of May.

H. maculatus from the Himalayas is a closely allied species, but may be distinguished at once by the character of the spots on the back, which are squarish, whereas in *H. guttatus* they are quite round.

26. HENICURUS LESCHENAULTI.

THE LARGER BLACK-BACKED FORKTAIL.

Turdus leschenaulti, Vieill. *N. Dict.* xx. p. 269. **Enicurus sinensis**, Gould, *P. Z. S.* 1865, p. 665. **Henicurus leschenaulti**, Elwes, *Ibis*, 1872, p. 258; Wald. in *Bl. B. Burm.* p. 97; Hume, *S. F.* v. p. 249; Tweedd. *Ibis*, 1877, p. 310; Dav. et Oust. *Ois. Chine*, p. 295, pl. 37; Hume & Dav. *S. F.* vi. p. 360; Hume, *S. F.* viii. p. 103.

Description.—*Male and female.* The plumage is the same as in *H. frontalis* and the birds only differ in size: the white in some specimens is confined to the forehead only; but this is not a sexual difference, for in the allied *H. frontalis* a sexed female had the white extending to the crown. The narrowness of the white is probably due to youth.

Length 11 inches, tail 5·7, wing 4·2, tarsus 1·3, bill from gape 1·1.

The Larger Black-backed Forktail was met with by Mr. Davison in various places in Tenasserim from Kollidoo down to Meeta Myo. It seems to be confined to the rivulets of the denser evergreen forests below 2500 feet elevation.

It extends into the mountains of Southern China up to Hoangho and is a resident there. It has been observed also in the Lushai and Dafla hills and in Assam.

Southwards it ranges down the Malay peninsula to Java. It probably occurs in Sumatra.

Birds from China and Java appear to me to be inseparable.

27. HENICURUS SCHISTACEUS.

THE SLATY-BACKED FORKTAIL.

Enicurus schistaceus, Hodgs. *As. Res.* xix. p. 189; Jerd. *B. Ind.* ii. p. 214.

Henicurus schistaceus, Elwes, *Ibis*, 1872, p. 253; *Bl. B. Burm.* p. 97; Dav. et Oust. *Ois. Chine*, p. 296; Hume & Dav. *S. F.* vi. p. 361; Hume, *S. F.* viii. p. 103; Scully, *S. F.* viii. p. 311.

Description.—*Male and female.* Forehead and a line extending over the eye and behind it white; feathers at base of bill, lores, cheeks, throat and under the ear-coverts black; ear-coverts, head and back, with the smaller wing-coverts and flanks, slaty; rump, upper tail-coverts and lower plumage white; the two outer rectrices entirely white, the others black, with the exception of the portions under the coverts and the tips which are white; primary-coverts black; greater coverts black, broadly tipped

white ; quills black, all tipped white, the bases of the feathers also white, more extensive on the third to seventh primaries, where they form a conspicuous spot below the primary-coverts.

Legs, feet and claws pale fleshy white, tinged blue ; bill black ; irides dark brown. (*Davison*.)

Length 10·5 inches, tail 4·8, wing 3·8, tarsus 1·1, bill from gape 1. The female is smaller.

The Slaty-backed Forktail, according to Mr. Davison, occurs in every part of Tenasserim in the larger hill forest-streams. Capt. Wardlaw Ramsay obtained it in the Karin hills, and Mr. Blyth records it from Arrakan.

It extends through Southern China and the Indo-Burmese countries, and it is found in the Eastern Bengal hills, Sikhim and Nipal.

Unlike the other members of this genus, this Forktail appears to frequent large open streams in preference to the small rivulets in the depths of the forest.

Genus HYDROCICHLA, *Sharpe*.

28. HYDROCICHLA RUFICAPILLA.

THE CHESTNUT-BACKED FORKTAIL.

Enicurus ruficapillus, *Temm. Pl. Col.* 534 ; *Elwes, Ibis*, 1872, p. 257 ; *Hume & Dav. S. F.* vi. p. 361 ; *Hume, S. F.* viii. p. 103. *Hydrocichla ruficapilla*, *Sharpe, Cat. Birds B. Mus.* vii. p. .

Description.—*Male*. Forehead white ; the feathers immediately near the nostrils, the lores, cheeks and ear-coverts, chin and throat black ; the whole top of the head, nape, upper back and the sides of the neck chestnut ; the back, scapulars and lesser wing-coverts black ; greater coverts black, broadly tipped with white ; primaries wholly black ; the secondaries and tertiaries black, each feather with a white patch at the base and with a white tip ; the lower plumage, rump and upper tail-coverts white, the feathers of the breast and upper abdomen edged with black ; the two outer pairs of tail-feathers white ; the others black, with broad white bases and tips.

In the *female*, according to Mr. Hume, the red extends over the whole upper back and scapulars in undiminished purity of colour.

Legs, feet and claws pale pinky or fleshy white ; bill black ; irides dark brown. (*Davison*.)

Length 8 inches, tail 3·5, wing 3·7, tarsus 1·1, bill from gape 1. The female is smaller.

The Chestnut-backed Forktail has been found in the extreme southern portion of Tenasserim about Malewoon, and also at the foot of Nwalabo mountain, considerably further north.

It extends down the Malay peninsula, and occurs in Sumatra, Java and Borneo.

This species and the next are remarkable for their comparatively short tail, which is about the length of the wing. In all the other Burmese species the tail is considerably longer than the wing.

29. HYDROCICHLA FRONTALIS.

THE LESSER BLACK-BACKED FORKTAIL.

Enicurus frontalis, *Bl. J. A. S. B.* xvi. p. 156. **Henicurus frontalis**, *Elwes, Ibis*, 1872, p. 259, pl. ix.; *Salvad. Ucc. Born.* p. 258; *Oates, S. F.* v. p. 248; *Tweedd. Ibis*, 1877, p. 310; *Hume & Dav. S. F.* vi. p. 360; *Hume, S. F.* viii. p. 103.

Description.—*Male and female.* Forehead and front of crown white; head, neck, breast, back and lesser wing-coverts black; rump, belly, vent, upper and under tail-coverts white; greater wing-coverts black, tipped with white; primaries black; secondaries and tertiaries black with the bases white; two outer pairs of tail-feathers white, the others black with white bases and tips.

The *young* have no white on the head, and the general colour is sooty black where the adult is pure black.

Bill black; legs flesh-colour.

Length 8 inches, tail 3·7, wing 3·5, tarsus 1·1, bill from nostril to tip ·51.

The Lesser Black-backed Forktail has occurred only in the extreme south of Tenasserim at Bankasoon, where both Mr. Davison and my own collectors secured specimens.

It extends down the Malay peninsula and occurs in Borneo and Sumatra.

Family TIMELIIDÆ.

Subfamily CRATEROPODINÆ.

Genus CRATEROPUS, *Swains.*

30. CRATEROPUS EARLII.

THE STRIATED REED-BABBLER.

Malacocercus earlii, *Bl. J. A. S. Beng.* xiii. p. 369. **Chatarrhœa earlii**, *Jerd. B. Ind.* ii. p. 68; *Hume, Nests and Eggs*, p. 275; *Hume & Henders. Lah. to Yark.* pl. x.; *Hume, S. F.* iii. p. 124; *Oates, S. F.* v. p. 156; *Hume, S. F.* viii. p. 97; *Oates, S. F.* x. p. 208. **Crateropus earlii**, *Bl. B. Burm.* p. 118.

Description.—*Male and female.* Upper plumage brown tinged with rufous, the feathers of the head centred largely with very dark brown, those of the back and scapulars with very dark brown shaft-marks; upper tail-coverts obsoletely dark-shafted; tail brown, the shafts darker, and all the feathers cross-rayed; the whole wing with the coverts brown, the lesser coverts centred with darker brown; lores grey; cheeks and ear-coverts plain rufescent; chin, throat and breast the same, but with the shafts brown, the shaft-stripes becoming larger from the chin to the breast; remainder of lower parts pale buffy brown, albescent in the centre of the abdomen.

Iris bright yellow; eyelid plumbeous; bill fleshy yellow, the culmen, nostril, and tip of both mandibles horn-colour; mouth yellow; legs plumbeous; claws pinkish.

Length 9·5 inches, tail 4·8, wing 3·5, tarsus 1·3, bill from gape 1·1. The female is much the same in size.

The Striated Reed-Babbler occurs very numerously in many parts of Pegu. It is abundant in all the grassy plains lying between the Pegu road and the Sittang river from the latitude of Shwaygheen southwards to about Kamwone. I also found it very abundant in the grass plains of the Henzadah district. Mr. Blanford met with it at Thayetmyo, where I, however, failed to notice it in the course of many years, so that it must be rare there.

According to Jerdon it occurs in Bengal and the Nipal Terai. It has also been obtained in Scinde. It probably occurs throughout the Indo-Burmese countries. Colonel Godwin-Austen records it from the Khasia hills and other portions of Eastern Bengal.

This Reed-Babbler frequents grassy plains, going about in small flocks,

and following one another from clump to clump with much noise. Their note is a sort of mew, rather loud and extremely monotonous. I found the nest in May, in the plains near the Pegu canal. The structure is large and cup-shaped, constructed of coarse grasses neatly woven together. It is usually placed in a thick clump of elephant-grass about a foot from the ground and resting on the old and decayed grasses which in May are found at the roots of the new growth. The eggs are blue and usually three in number.

31. CRATEROPUS GULARIS.

THE WHITE-THROATED BUSH-BABBLER.

Chatarrhoea gularis, *Bl. J. A. S. B.* xxiv. p. 478; *Hume, S. F.* iii. p. 124; *Anderson, Yunnan Exped.* p. 639, pl. xlviii.; *Hume, S. F.* viii. p. 97. *Crateropus gularis*, *Bl. B. Burm.* p. 117.

Description.—*Male and female.* Forehead and a line on either side continued up to the eye grey, each feather with a blackish stripe down the centre; top of head, neck and back with the scapulars ruddy brown, each feather with a dark brown shaft-stripe; rump olive-brown, and the upper tail-coverts the same, with indistinct shaft-stripes; wings and wing-coverts olive-brown, some of the greater coverts indistinctly dark-shafted; ear-coverts and sides of neck ruddy brown; lores black; chin, throat, cheeks and upper breast white; remainder of lower plumage ruddy brown; tail olive-brown, with numerous cross bars of darker brown.

Length 10 inches, tail 5·4, wing 3·2, tarsus 1·4, bill from gape 1.

The White-throated Bush-Babbler is confined to the northern portions of the Pegu division in the Irrawaddy valley. It is very common at Thayetmyo. To the east I have observed it as far as Tamagan; to the west it probably occurs up to the foot of the Arrakan hills; and to the south it is found as far as Prome.

Mr. Blanford observed it in Native Burmah, and Dr. Anderson procured it near Bhamo.

This Babbler is a well-known bird to persons who have resided at Thayetmyo, for it is very familiar, entering gardens and compounds. It goes about in small parties and the birds have the habit of following one another from bush to bush in single file. It is a noisy bird. Its nest has not yet been found.

32. CRATEROPUS CAUDATUS.

THE STRIATED BUSH-BABBLER.

Cossyphus caudatus (*Duméril*), *Drapiez, Dict. Class. d'Hist. Nat.* x. p. 219.
Chatarrhoea caudata, *Jerd. B. Ind.* ii. p. 67; *Hume, Nests and Eggs*, p. 274;
Hume & Henders. Lah. to Yark. p. 197, pl. ix.; *Hume, S. F.* v. p. 337, viii.
 p. 97. **Crateropus caudatus**, *Bl. B. Burm.* p. 118; *Wald. Trans. Zool. Soc.*
 ix. p. 189.

Description.—*Male and female.* Whole upper plumage ashy brown tinged with fulvous, each feather with a dark brown streak down the centre; upper wing- and tail-coverts with the shafts only dark brown; quills plain ashy brown, lighter on the outer webs; tail ashy brown, the shafts very dark brown, and each feather obsoletely cross-barred; chin and throat fulvous white; lores brown; ear-coverts rufescent; lower plumage pale fulvous, albescent on the abdomen, and the sides of the breast faintly striated.

Bill pale brownish horny; legs dull yellow; irides red-brown. (*Jerdon*.)

Length 9·5 inches, tail 4·5, wing 3, tarsus 1·1, bill from gape 1.

The Striated Bush-Babbler is said by Mr. Blyth to have occurred in Arrakan and also at Thayetmyo. I have not myself met with it, nor has it been again recorded from Burmah by any recent observer.

It inhabits every portion of the Indian peninsula from Cape Comorin up to Cashmere and Bengal, and even ranges into Persia, unless the species there found (*C. huttoni*) should prove to be distinct.

It is probably found in the Indo-Burmese countries. It is said to have occurred even in the Philippine Islands.

This Babbler frequents plains covered with bushes, and appears to be one of the commonest birds of India, entering gardens and compounds. It makes a cup-shaped nest, and lays blue eggs.

Subfamily GARRULACINÆ.

Genus GARRULAX, *Less.*

33. GARRULAX BELANGERI.

THE BURMESE WHITE-CRESTED LAUGHING-THRUSH.

Garrulax belangeri, *Less. Bél. Voy. aux Indes*, p. 258, pl. 4; *Wald. P. Z. S.* 1866, p. 548; *Bl. B. Burm.* p. 107; *Hume, S. F.* iii. p. 122; *Oates, S. F.* v. p. 156; *Hume & Dav. S. F.* vi. p. 286; *Hume, S. F.* viii. p. 96, ix. p. 292.

Description.—*Male and female.* Base of the upper mandible, lores, cheeks, ear-coverts and a narrow line over the eye black; head and crest, chin, throat, breast and sides of the neck white, the hinder part of the crest turning to smoky grey; upper wing-coverts, back, scapulars, rump and upper tail-coverts, the sides of the body, the vent, under tail-coverts and thighs rich ferruginous, brightest on the upper back; centre of the abdomen white; tail brown, tinged with rufescent at the base; the inner webs of the primaries and secondaries brown, the outer webs and the whole of the tertiaries rufescent olive-brown.

Bill black; gape yellow; mouth flesh-colour; iris pinkish hazel; legs plumbeous; claws pale horn-colour; eyelids purplish grey.

Length 11·5 inches, tail 4·6, wing 5, tarsus 1·65, bill from gape 1·4. The female is about the same size.

The Burmese White-crested Laughing-Thrush is found abundantly in all the wooded parts of Pegu. Mr. Davison states that it is common in Tenasserim as far south as Tavoy. Capt. Wardlaw Ramsay does not record it from Karennee, and it is doubtful whether it is found in Arrakan.

The birds of this genus are most of them well known to all who wander in the forests on account of their loud notes, the character of which has caused them to be called "Laughing-Thrushes." The presence of a stranger, be it man, dog or other enemy, is at once a signal for these remarkable birds to break out into a deafening chorus of demoniacal laughter, which continues at intervals till the cause of anxiety is removed. They associate in rather large flocks, feeding on the ground like ordinary Thrushes, and moving about in trees and brushwood. They execute wonderful capers at times, erecting their crests, drooping their wings and spreading out their tails. A charming account of their habits has been given by Mr. Davison, which I regret is too long for me to quote.

I have frequently found the nest of this species in May and June. It is

generally placed in a bush or small tree at no great height from the ground, and is made of small branches and leaves, the interior being lined with fine twigs. It is cup-shaped, bulky, and very firm. The eggs are pure white and usually three in number.

34. GARRULAX LEUCOLOPHUS.

THE HIMALAYAN WHITE-CRESTED LAUGHING-THRUSH.

Corvus leucolophus, *Hardw. Trans. Linn. Soc.* xi. p. 208, t. 15. **Garrulax leucolophus**, *Jerd. B. Ind.* ii. p. 35; *Hume, Nests and Eggs*, p. 253; *Bl. B. Burm.* p. 407; *Hume, S. F.* iii. p. 122, viii. p. 96; *Scully, S. F.* viii. p. 289.

Description.—*Male and female.* Like *G. belangeri*, but the rufous of the upper plumage confined to a broad collar on the upper back immediately below the white head. With this exception, those parts which are rufous in the upper plumage of *G. belangeri* are in *G. leucolophus* plain olive-brown. The lower plumage is also much duller rufous.

Bill horny black; irides red-brown; orbital skin slaty; feet livid plumbeous; claws dusky grey. (*Scully.*)

The dimensions are about the same as those of *G. belangeri*.

The Himalayan White-crested Laughing-Thrush is stated by Mr. Blyth to occur in Arrakan. I have no personal knowledge of the bird myself, nor has it been met with in Arrakan in more recent times. This, however, is no matter for surprise, for the whole of that division remains unexplored, ornithologically, to this day.

It inhabits the Himalayas from the north-west down to Assam, and it is also known to occur in the Khasia hills and hill-tracts of Eastern Bengal.

Its habits are precisely those of the preceding species.

35. GARRULAX DIARDI.

THE SIAMESE WHITE-CRESTED LAUGHING-THRUSH.

Turdus diardi, *Less. Traité d'Orn.* p. 408; *Pucheran, Arch. du Mus.* vii. p. 376. **Garrulax leucogaster**, *Wald. P. Z. S.* 1866, p. 549; *id. Ibis*, 1867, p. 381; *Hume, S. F.* ix. p. 292.

Description.—*Male and female.* Forehead, anterior half of crown and basal half of crest white; terminal half of crest and nape grey; hind neck

rufous-grey; back, scapulars and lesser wing-coverts bright ferruginous; median and greater coverts, tertiaries, rump and upper tail-coverts rufous-brown; primaries and secondaries dark brown edged with rufous-brown; tail dark brown; lores, feathers round the eyes and ear-coverts, forming a broad band, black; cheeks, sides of the neck and whole lower plumage white tinged with fulvous; flanks and under tail-coverts dull ferruginous.

Length about 11·5 inches, tail 4·6, wing 5·2, tarsus 1·9, bill from gape 1·35.

This species is allied to *G. belangeri* and differs principally in having the abdomen and vent white instead of deep ferruginous; the hinder crest and nape grey instead of white. The description is taken from the type of *G. leucogaster* in Capt. Wardlaw Ramsay's museum. There can be no doubt that this bird is identical with *G. diardi* redescribed by Dr. Pucheran.

The Siamese White-crested Laughing-Thrush appears to have occurred in Tenasserim, on the frontier hills between Tavoy and Siam, where some specimens are said to have been collected by a gentleman in Capt. Hill's survey party. These birds, which were in the Mandelli collection, have been examined by Mr. Hume.

Lord Walden described this bird from a specimen procured in Siam. Dr. Tiraud states that *G. belangeri* occurs in Cochin China; but he probably has mistaken that bird for the present species.

There is nothing on record about its habits which, however, are not likely to differ in any respect from its congeners.

36. GARRULAX MONILIGER.

THE NECKLACED LAUGHING-THRUSH.

Cinclosoma moniliger, *Hodgs. As. Res.* xix. p. 147. **Garrulax moniliger**, *Jerd. B. Ind.* p. 40; *Hume, Nests and Eggs*, p. 257; *Hume, S. F.* iii. p. 123; *Bl. B. Burm.* p. 108; *Oates, S. F.* v. p. 156; *Anders. Yunnan Exped.* p. 627; *Hume & Dav. S. F.* vi. pp. 291, 515; *Hume, S. F.* viii. pp. 96, 169; *Bingham, S. F.* ix. p. 181; *Oates, S. F.* x. p. 208.

Description.—*Male and female.* Forehead and crown olive-brown, the shafts darker; a broad collar round the back of the neck bright rusty; back, scapulars, rump, upper wing- and tail-coverts olive-brown tinged with ferruginous; a superciliary streak extending to the nape white; the lores, feathers round the eye, a line from the eye passing over the ear-coverts and widening to form a broad collar across the breast, black; ear-coverts generally white or grey, sometimes black; chin, throat, cheeks and

the breast above the black collar white, tinged with rusty near the collar ; the remaining lower plumage clear fulvous, turning to whitish on the abdomen ; primaries and secondaries brown on the inner webs, cinereous on the outer ; tertiaries wholly cinereous ; centre pair of tail-feathers like the tertiaries ; the others cinereous at the base, then black and broadly tipped with white ; the pair next the central ones is usually like the other laterals, but occasionally wholly cinereous.

Iris bright yellow ; eyelids dull purple ; bill dark horn, the tip and margins pale horn ; legs light plumbeous ; claws pale horn-colour. The iris is sometimes greenish yellow, which probably indicates immaturity.

Length 12 inches, tail 4·9, wing 5, tarsus 1·7, bill from gape 1·3. The female is smaller.

The Necklaced Laughing-Thrush is found over the whole of Pegu in well-wooded localities. Mr. Blyth records it from Arrakan. Mr. Davison found it very common throughout Tenasserim as far south as Tavoy, and Capt. Bingham says that it is found in the Thoungyeen valley. Capt. Wardlaw Ramsay did not meet with it further east than the Karin hills.

It has a considerable range, being found throughout the Indo-Burmese countries and in the Himalayas from Assam to Sikhim.

I have found the nest of this Laughing-Thrush in Pegu in June and July. It resembles that of *G. belangeri*. The eggs, however, are blue.

37. GARRULAX PECTORALIS.

THE BLACK-GORGETED LAUGHING-THRUSH.

Ianthocincla pectoralis, Gould, *P. Z. S.* 1835, p. 186. *Garrulax pectoralis*, Jerd. *B. Ind.* ii. p. 39 ; Hume, *Nests and Eggs*, p. 256 ; *Bl. B. Burm.* p. 108 ; Hume, *S. F.* iii. p. 122 ; Oates, *S. F.* v. p. 156 ; Wardlaw Ramsay, *Ibis*, 1877, p. 463 ; Hume & Dav. *S. F.* vi. p. 291 ; Hume, *S. F.* viii. pp. 96, 169 ; Bingham, *S. F.* ix. p. 181 ; Oates, *S. F.* x. p. 208.

Description.—*Male and female.* Very like *G. moniliger*, differing chiefly in being much larger. The ear-coverts vary in colour more than in *G. moniliger*, being often black, white, or a combination of both these with each other and with grey, rufous and other tints.

Upper mandible dark horn-colour, lower bluish horn at the base and tip and darker horn in the middle ; mouth bluish ; iris orange-brown ; eyelids and orbital skin dusky blue ; edges of the eyelids orange-yellow ; legs light plumbeous ; claws pale horn.

Length 12·7 inches, tail 5·1, wing 5·7, tarsus 1·85, bill from gape 1·5. The female is smaller.

The Black-gorgeted Laughing-Thrush is very common throughout the northern half of Pegu or perhaps only down to the latitude of Prome. I have never met with it elsewhere in Pegu, but Mr. Hume states that he has seen specimens from near Rangoon. To the eastwards it extends as far as Karennee, where Capt. Wardlaw Ramsay found it very common. In Tenasserim it seems to be rather rare. Mr. Davison met with it at Meetan at the foot of Mooleyit; Mr. Darling at Kaukarit, and Capt. Bingham in the Thoungyeen valley. Wherever found it seems to be associated with the preceding species. Mr. Blyth states that it is found in Arrakan.

It occurs in the Himalayas and it has also been found in the hill-ranges of Eastern Bengal.

An allied species is *G. picticollis* from China.

I found the nest of this species in April on the Pegu hills, placed in a seedling bamboo; but I have doubts now as to whether it may not have belonged to *G. moniliger*. Capt. Wardlaw Ramsay found nestlings in Karennee in March*.

38. GARRULAX STREPITANS.

TICKELL'S LAUGHING-THRUSH.

Garrulax strepitans (*Tickell*), *Bl. J. A. S. B.* xxiv. p. 268; *Bl. B. Burm.* p. 107
Hume & Dav. S. F. vi. p. 288; *Hume, S. F.* viii. p. 96.

Description.—*Male and female.* Forehead, lores, sides of the head and the chin black; front part of ear-coverts blackish, the hinder part ferruginous; whole top of the head and nape ochraceous olive-brown; a patch on each side the neck pure white; a broad collar over the upper back connecting the two white patches pale grey, the grey in a gradually darkening form spreading over the whole back; wing-coverts, tertiaries, the outer webs of the primaries and secondaries, rump and upper tail-coverts olive-brown; remainder of wing dark brown; tail dark brown, suffused with olive and obsoletely cross-barred; throat and breast chocolate-brown; a

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GARRULAX ALBIGULARIS.

Mr. Blyth gives this species from Tavoy on the authority of Mr. Gould. It is so unlikely to occur there that I do not enter it in my list. I append Dr. Jerdon's account of the plumage :—"Above dull olive-brown, with some fulvous on the forehead and near the eyes; lores and under the eyes black; terminal third of the outer tail-feathers white; beneath, the chin and throat white; breast the same colour as the back; abdomen, vent and under tail-coverts rusty, darker on the flanks and under tail-coverts."

It is found in the Himalayas.

band of pale grey connecting the two neck-patches encircles the breast, the grey running down and suffusing the whole upper part of the abdomen as well as a central band down the abdomen reaching nearly to the vent; sides of the abdomen, flanks, vent and under tail-coverts olive-brown, slightly rufescent.

Legs and feet very dark brown; claws paler; bill black; irides generally lake-red, sometimes crimson. (*Davison*.)

Length 11·8 inches, tail 5·3, wing 5·3, tarsus 1·8, bill from gape 1·4. The female is of the same size.

Tickell's Laughing-Thrush was discovered by Col. Tickell on Mooleyit mountain in Tenasserim at elevations from 3000 to 5000 feet. Mr. Davison met with it on the same mountain from 3500 feet to the summit. It is not known to occur elsewhere as yet.

Mr. Davison remarks :—"This species is not by any means uncommon, occurring in small flocks of twenty or more, and keeping entirely, so far as I have observed, to the forest, especially to the ravines where this is densest." He adds that it is very shy and beats a rapid retreat at the approach of anybody. It is a very clamorous bird.

39. GARRULAX CHINENSIS.

THE BLACK-THROATED LAUGHING-THRUSH.

Lanius chinensis, Scop. *Del. Fl. et Faun. Insub.* ii. p. 86. *Garrulax chinensis*, Wald. *P. Z. S.* 1866, p. 549; *Bl. B. Burm.* p. 107; *Hume & Dav. S. F.* vi. p. 289; *Dav. et Oust. Ois. Chine*, p. 191; *Hume, S. F.* viii. p. 96.

Description.—*Male and female.* Forehead, lores, round the eye and a line over the ear-coverts black; a patch below the lores, chin and throat also black; cheeks and ear-coverts white; forehead and crown dark cinereous, the front part of the latter dashed with white; sides of the neck, back, rump, scapulars, upper tail-coverts, upper wing-coverts and tertiaries ferruginous ashy; primaries and secondaries brown, the outer webs edged with the colour of the back; lower plumage brown, tinged with ferruginous; bases of the tail-feathers like the back, the terminal portions black; the region of the vent ferruginous.

Iris red; bill black; mouth plumbeous; eyelids plumbeous; legs fleshy brown; claws horn-colour.

Length 10·6 inches, tail 4·7, wing 4·5, tarsus 1·6, bill from gape 1·2. The female is the same size.

The Black-throated Laughing-Thrush occurs rarely in Pegu. I procured it once or twice near Kyeikpadein and again in the forests between Nyounlay-bin and Shwaygheen on the west of the Sittang river. Mr. Davison

found it in Tenasserim from Pahpoon down to Meetan at the foot of Mooleyit but not common, apparently, anywhere. Capt. Bingham notes its occurrence in the Thoungyeen valley.

I found the specimens I procured near Kyeikpadein frequenting thin jungle, but on other occasions I noticed it in heavy forest. I did not hear their note, but Mr. Davison states that is not so harsh nor so loud as in the other Laughing-Thrushes. It goes about in small parties and occasionally in pairs only.

Genus TROCHALOPTERUM, *Hodgs.*

40. TROCHALOPTERUM MELANOSTIGMA.

THE CHESTNUT-HEADED LAUGHING-THRUSH.

Trochalopteron melanostigma, *Bl. J. A. S. B.* xxiv. p. 268; *id. B. Burm.* p. 108; *Wardlaw Ramsay, Ibis*, 1877, p. 464; *Hume & Dav. S. F.* vi. p. 291; *Hume, S. F.* viii. p. 96.

Description.—*Male and female.* The base of the forehead, the lores, cheeks and chin black, the black of the lores extending slightly over the eye; a short supercilium, the ear-coverts and the sides of the nape silvery grey, the shafts blackish; the whole top of head contracting to a point on the nape bright chestnut; back, rump, lesser wing-coverts and the tail-coverts olive-brown, tinged with ochraceous on the back; greater wing-coverts olive-brown, tipped with ferruginous; primary-coverts black; wings olive-yellow on the outer webs, dark brown on the inner; tail entirely dull olive-yellow; throat and upper breast ochraceous red, shading off into paler ochraceous on the sides of the neck, breast and central portion of the abdomen; sides of the abdomen, flanks and under tail-coverts olive-grey.

Legs, feet and claws very pale brown to reddish brown; bill black; irides brown or hazel-nut brown. (*Davison.*)

Length-10·5 inches, tail 4·2, wing 4·2, tarsus 1·5, bill from gape 1·2. The female is of the same size.

The Chestnut-Headed Laughing-Thrush was discovered by Col. Tickell on Mooleyit at an elevation of 7500 feet. Mr. Davison also met with it on that mountain at elevations above 3000 feet. He also procured it in the pine-forests of the Salween river. It has also been observed by Capt. Wardlaw Ramsay in Karennee at an elevation of 5000 feet.

According to Mr. Davison, these birds keep in parties of six or eight, feeding chiefly on the ground and keeping much in the brushwood. They are neither very noisy nor very silent, uttering from time to time a fine whistling call. They appear to feed exclusively on insects.

Genus GAMPSORHYNCHUS, *Bl.*

41. GAMPSORHYNCHUS RUFULUS.

THE WHITE-HEADED SHRIKE-THRUSH.

Gampsorhynchus rufulus, *Bl. J. A. S. B.* xiii. p. 371; *Jerd. B. Ind.* ii. p. 14; *Bl. & Wald. B. Burm.* p. 109; *Wald. Ibis*, 1875, p. 460; *Hume, S. F.* viii. pp. 95, 168.

Description.—*Male and female.* The whole head, neck and under plumage white; the abdomen, flanks, vent and under tail-coverts tinged with buff; back, scapulars, rump and upper tail-coverts fulvous brown; tail fulvous brown, tipped paler; lesser and greater wing-coverts fulvous brown; median coverts white; primaries and secondaries with the outer webs fulvous brown, and the inner webs dark brown edged with buff; tertiaries wholly fulvous brown; under wing-coverts pale fulvous.

Young birds have the top of the head, nape, ear-coverts and sides of the head chestnut; the median wing-coverts are the same colour as the other coverts, and the breast is tinged with fulvous.

Bill dusky horny above, pale beneath; legs reddish horny; irides orange-yellow in some, straw-yellow in others. (*Jerdon.*)

Length 9 inches, tail 4·7, wing 3·9, tarsus 1·1, bill from gape 1.

The White-headed Shrike-Thrush has been recorded from Arrakan by Mr. Blyth. I procured one specimen in that division at Nyoungyo near the crest of the hill-range. It has not been observed in any other part of Burmah, the Tenasserim bird being quite a distinct species.

It is found in Nipal and Sikhim, and also in the hill-tracts of Eastern Bengal.

Very little appears to be known regarding this species. The specimen which was brought to me from the Arrakan hills must perforce have been shot in forest. Dr. Jerdon was informed by natives in Sikhim that it was found in small flocks in thick bushy places. They appear to eat grasshoppers and other insects.

42. GAMPORHYNCHUS TORQUATUS.

THE TENASSERIM SHRIKE-THRUSH.

Gamporhynchus torquatus, Hume, *Proc. A. S. Beng.* 1874, p. 107; *id. S. F.* ii. p. 446; Hume & Dav. *S. F.* vi. p. 258; Hume, *S. F.* viii. pp. 95, 168; Bingham, *S. F.* ix. p. 178.

Description.—I have not been able to examine specimens of this species. It is allied to *G. rufulus*. Mr. Hume says:—"It is only the very oldest birds of both species that could be confounded; in these, however, clear distinctions exist. The bills in *rufulus* are brown, in *torquatus* white, with only more or less of a dark line on the culmen; all the tail-feathers are conspicuously tipped with white in *torquatus*, in *rufulus* they are more narrowly tipped with pale rufous. The outer webs of the earlier primaries in *torquatus* are nearly white, whereas they are pale greyish olive in *rufulus*. In the oldest birds, too, of *torquatus* there seems to be always a patch or two of a bright ferruginous buff on the lower surface, such as is not seen even in the youngest bird of *rufulus*; lastly, the white does not extend so far on to the interscapular region in *torquatus* as it does in *rufulus*, except in the very oldest birds. . . . The young birds, instead of having the heads red, as in *rufulus*, have them and the nape the same colour as the back, but of a deeper and darker shade; and this colour extends round the neck nearly, but not quite, meeting in front, and as the white of maturity beginning at the forehead and creeping backwards towards the nape extinguishes most of this dark colour, it still leaves the lower portion of it as a torque, as in the type specimen."

The original description of the type specimen runs thus:—"Resembles *rufulus*, but is rather smaller and has a slightly smaller bill; the white of the head does not extend backwards beyond the crown, nor that of the throat on to the breast; a deep rufous-brown band bounds the white of the head everywhere, being deepest and most conspicuous across the base of the throat, where it forms a regular and most marked collar."

Bill greyish horny or fleshy white, with, in some cases, a dusky line on the culmen; the legs and feet greyish white, or slaty white, or fleshy white with a blue tinge; the irides pale to bright golden.

Length 9·4 to 10·2 inches, tail from vent 4·5 to 5, wing 3·7 to 4·1, tarsus 1·05 to 1·2, bill from nape ·9 to 1. The female is slightly larger than the male.

The Tenasserim Shrike-Thrush was first procured by Mr. Davison in the Yonzaleen Creek in Tenasserim. Subsequently Mr. Darling met with in greater abundance at Thoungyah on the flank of Mooleyit. Capt. Bingham states that it is not uncommon on the higher spurs of the Dawna range,

bounding one side of the Thoungyeen valley. Capt. Wardlaw Ramsay procured this species or the preceding on the Tonghoo hills, and I regret that I have neglected to examine his specimens*.

The bird shot by Mr. Davison was in thin jungle largely intermixed with bamboo; but the birds observed by Capt. Bingham were in dense evergreen forest. There is nothing more recorded of their habits.

Genus ACTINODURA, Gould.

43. ACTINODURA RAMSAYI.

RAMSAY'S BAR-WING.

Actinura ramsayi, Wald. *Ann. Nat. Hist.* ser. 4, xv. p. 402; Wald. in *Bl. B. Burm.* p. 108; Wardlaw Ramsay, *Ibis*, 1877, p. 464, pl. xii.; Hume, *S. F.* iii. p. 404. *Actinodura ramsayi*, Hume & Dav. *S. F.* vi. p. 293; Hume, *S. F.* viii. p. 97.

Description.—*Male and female.* Whole upper plumage ashy brown, tinged with ferruginous on the forehead, most of the feathers, especially the scapulars and upper tail-coverts, barred with black; feathers round the eye white; the lores dusky; ear-coverts ashy brown; sides of the back of the head and the lateral feathers of the crest ashy; whole lower plumage ochraceous buff; tail olive-brown, with numerous cross bars of black, the bars increasing in size towards the tips; all the tail-feathers tipped white; outer webs of the primaries and secondaries ferruginous, barred throughout with black, inner webs brown; tertiaries olive-brown, barred with black.

Iris light hair-brown; bill horny brown; legs slaty brown. (*Wardlaw Ramsay.*)

Length about 9·5 inches, tail 5, wing 3·5, tarsus 1·15, bill from gape ·95.

Ramsay's Bar-wing was procured at Kyai-pho-ghee in Karennee by Capt. Wardlaw Ramsay, in jungle-covered mountain-streams, at an elevation of about 3000 feet.

This species somewhat resembles *A. egertoni* of the Himalayas, but may be recognized by its barred tail. *A. waldeni*, from the Naga hills, is similar to *egertoni*, but is said to be smaller. *A. oglii*, from Assam, differs remarkably from all others, and possesses a white chin and supercilium. *A. nipalensis*, from the Himalayas, has the head and crest with white shaft-stripes.

* Capt. Wardlaw Ramsay has, however, just informed me that all the specimens he procured on the Tonghoo hills are undoubtedly *G. torquatus*. He remarks that the colour of the back of the head at once serves to separate this species from *G. rufulus*.

Genus SIBIA, *Hodgs.*

44. SIBIA PICAOIDES.

THE LONG-TAILED SIBIA.

Sibia picaoides, *Hodgs. J. A. S. B.* viii. p. 38; *Jerd. B. Ind.* ii. p. 55; *Hume, Nests and Eggs*, p. 268; *Wald. Ibis*, 1876, p. 354; *Hume & Dav. S. F.* vi. p. 294; *Hume, S. F.* viii. p. 97; *Scully, S. F.* viii. p. 293.

Description.—*Male and female.* The whole plumage bluish brown or glaucous, paler beneath; forehead and lores brown; wings dark brown, becoming black on the tertiaries, four of the secondaries with a white patch on the outer webs; tail brown, each feather tipped white.

Bill horny black; irides scarlet; feet greyish dusky; claws horny black. (*Scully.*)

Length about 13 inches, tail 8, wing 4·7, tarsus 1·1, bill from gape 1·1.

The Long-tailed Sibia was procured in Karennee by Capt. Wardlaw Ramsay, at an elevation of 5000 feet. Colonel Tickell, in his 'Illustrations of Indian Ornithology,' states that he killed this species in Tenasserim, at an elevation of 3000 feet, and that it inhabits the whole Eastern Himalaya and along the Malayan spur.

It occurs in Nipal, Sikhim and Bhootan, and it has also been observed in the Dafla hills in Assam.

Dr. Jerdon states that it associates in flocks of six or seven and flies from tree to tree, feeding both on fruit and insects, and keeping up a continual whistling sort of call. Dr. Scully observes that it frequents silk-cotton trees singly or in pairs, feeding on the flowers like *Chibia hottentota*.

Mr. Gammie found a nest in Sikhim, a cup made of herbaceous plants and lined with grass; and the eggs, five in number, were greyish white, speckled with brown and purple.

Genus MALACIAS, *Cabanis.*

45. MALACIAS MELANOLEUCUS.

TICKELL'S SHORT-TAILED SIBIA.

Sibia melanoleuca (*Tick.*), *Bl. J. A. S. B.* xxviii. p. 413; *Wald. Ibis*, 1876, p. 35; *Bl. B. Burm.* p. 108; *Hume & Dav. S. F.* vi. p. 293. *Sibia picata*, *Tick. J. A. S. B.* xxviii. p. 451. *Malacias melanoleucus*, *Hume, S. F.* viii. p. 97.

Description.—*Male and female.* Forehead, crown, nape, chin, lores and cheeks black; ear-coverts, sides of neck and the upper plumage rich

brown; tail brown, broadly tipped with white; wings glossy dark brown, the primaries with a patch of white on the inner webs, not visible when the wing is closed; the whole lower plumage pure white.

The legs and feet varied from a very dark reddish brown to a dark purplish brown or brownish black; bill black; irides lake. (*Davison*.)

Length 8·5 inches, tail 4, wing 3·5, tarsus 1·1, bill from gape ·95.

Tickell's Short-tailed Sibia is confined, so far as is at present known, to the higher slopes of Mooleyit mountain in Tenasserim.

According to Mr. Davison, the note of these birds is a single, long-drawn, clear-sounding whistle. Their food consists both of small berries and insects, which latter they capture amongst the foliage of the tree-tops, in which they are always moving. They never descend to the ground or even to brushwood, and they are not at all shy.

M. capistratus, of the Himalayas, is of a rufous colour, and has a black, crested head. *M. gracilis* is a small species from Assam, with the upper plumage light brown and the lower whitish. *M. pulchellus* is a species allied to *M. gracilis*, from the Naga hills.

Subfamily TIMELIINÆ.

Genus TIMELIA, *Horsf*.

46. TIMELIA PILEATA.

THE RED-CAPPED GRASS-BABBLER.

Timalia pileata, *Horsf. Trans. Linn. Soc.* xiii. p. 151; *Jerd. B. Ind.* ii. p. 24; *Hume, Nests and Eggs*, p. 246; *id. S. F.* iii. p. 118; *Oates, S. F.* v. p. 152; *Anders. Yunnan Exped.* p. 634; *Hume & Dav. S. F.* vi. p. 267. *Timalia jerdoni*, *Walden, Ann. Nat. Hist.* ser. 4, x. p. 61; *Bl. & Wald. B. Burm.* p. 114. *Timalia bengalensis*, *Godwin-Austen, J. A. S. B.* xli. pt. ii. p. 143; *Hume, S. F.* viii. p. 95.

Description.—*Male and female.* Forehead continued back as a short supercilium, white; lores black; the whole top of the head to the nape bright rufous; the whole upper plumage olive-brown, the greater coverts and tertiaries with broad rusty-brown edges on both webs, and the primaries and secondaries edged with the same on the outer web only; chin, throat, cheeks and ear-coverts pure white; sides of the neck ashy, with black shafts; neck and upper breast white, the shaft of each feather black and prolonged; lower breast, abdomen, sides, under tail- and wing-coverts ferruginous, the sides darker; the junction of the white of the breast with

the ferruginous of the belly tinged strongly with ashy ; tail brown, with paler edges, and distinctly rayed across.

Bill black ; iris dark red ; eyelids dark bluish grey ; mouth black ; legs purpurescent brown ; claws horn-colour.

Length 7 inches, tail 3·2, wing 2·5, tarsus 1, bill from gape ·75. The female is the same size.

I cannot discover any grounds for separating the Indian and Burmese bird from the Javan. The latter has perhaps rather less white on the forehead, and has the head rather paler ; but these are characters which I have found to vary a good deal. They are identical in size and shape of bill.

The Red-capped Grass-Babbler is a very common species all over Pegu ; there are few parts where I have not met with it. It is probably common over the whole of Arrakan, although I cannot find any specific mention of its occurrence in that division. Mr. Davison met with it in Tenasserim, at Pahpoon, and also at Yea-boo on the Attaran, but apparently nowhere else.

Dr. Anderson procured it near Bhamo, and Colonel Godwin-Austen in the Eastern Bengal tracts. It occurs in Cachar, the Bengal Sunderbuns, and at the foot of the mountains of Sikhim and Nipal. Dr. Tiraud states that it occurs in Cochin China. It is not known to inhabit any portion of the Malay peninsula, but it reappears in Java.

This Wren-Babbler frequents secondary jungle and gardens in Upper Pegu ; but in the southern parts, where high grass is abundant, it seems to prefer this class of vegetation. In the plains between the Sittang and the Pegu rivers it is common to a remarkable degree. It is a bright, cheery bird, always on the move, but concealing itself so admirably that it is rarely seen. It moves rapidly through the most entangled thickets and clumps of grass, and has the habit of spreading its tail when uttering its call, which is a succession of pleasant notes.

I have frequently found its nest in May and June—a domed structure made of grass, and placed either on the ground or in a fork of a bush close to it. It lays three eggs, which are white speckled with brown.

Genus PYCTORHIS, *Hodgs.*

47. PYCTORHIS SINENSIS.

THE YELLOW-EYED GRASS-BABBLER.

Parus sinensis, *Gm. Syst. Nat.* i. p. 1012 ; *Jerd. B. Ind.* ii. p. 15 ; *Hume, Nests and Eggs*, p. 237 ; *Hume, S. F.* iii. p. 115 ; *Bl. B. Burm.* p. 117 ; *Oates, S. F.* v. p. 151 ; *Anders. Yunnan Exped.* p. 637 ; *Hume, S. F.* viii. p. 95.

Description.—*Male and female.* The whole upper plumage rufescent brown, changing to cinnamon on the tertiaries and the outer webs of the other quills ; lores, chin, throat, cheeks and breast pure white ; abdomen, flanks, vent and under tail-coverts pale fulvous ; ear-coverts and sides of neck like the back ; tail duller than the upper plumage and very faintly cross-barred.

Iris pale orange-yellow ; eyelids deep orange ; bill black, yellowish at the nostrils ; legs pale orange-yellow ; claws pinkish ; mouth yellow in winter, black in summer.

Length 7 inches, tail 3·4, wing 2·5, tarsus 1, bill from gape ·6. The female is a trifle smaller.

A somewhat similar, but much larger, species with a long bill, *P. longirostris*, occurs in India and Eastern Bengal, and is not at all unlikely to be found in Burmah.

The Yellow-eyed Grass-Babbler occurs plentifully in every part of Pegu that I have visited except the higher hills, but is much commoner in the vast grassy plains of the south than elsewhere. Mr. Blyth states that he noticed it abounding in the vicinity of Akyab in Arrakan ; and it is probably spread over the whole of that division. Mr. Davison found that in Tenasserim it was confined to the portion of the division north of Moulmein, and it was rare.

It is spread through the Indo-Burmese countries and the whole of the peninsula of India, up to Scinde on the one hand and down to Cape Comorin on the other, and it ascends the Himalayas to about 4000 feet elevation.

This Babbler affects jungle of all descriptions, but, as before remarked, is much commoner in grass-land than in other sorts of jungle. Its usual call consists of a few loud and pleasant notes. It creeps through grass very cleverly, never moving a blade ; but its presence is detected by its often-repeated call.

It builds its nest in June, making a neat cup-shaped structure of grass, which it places near the ground supported between two weeds or more stalks of grass. The number of eggs is usually four, pinkish white blotched with red.

48. PYCTORHIS ALTIROSTRIS.

JERDON'S GRASS-BABBLER.

Chrysomma altirostre, *Jerd. Ibis*, 1862, p. 22; *Godw.-Aust. Ann. Nat. Hist.* ser. 4, xvii. p. 34; *Hume, S. F.* iv. p. 505. **Pyctorhis altirostris**, *Bl. & Wald. B. Burm.* p. 117; *Hume, S. F.* iii. p. 115; *Godw.-Aust. J. A. S. B.* xlv. pt. ii. pp. 74, 197, pl. ix.; *Blanf. S. F.* v. p. 245; *Oates, S. F.* v. p. 249; *Hume, S. F.* viii. p. 95; *Oates, S. F.* x. p. 206. **Pyctorhis griseigularis**, *Hume, S. F.* v. p. 116, viii. p. 95.

Description.—*Male and female.* Chin, throat and upper breast greyish white; lores and streak over the eye dirty white, the centre of each feather black, giving a mottled appearance to these parts; forehead and crown rather bright rufous-brown, the feathers of the forehead centred darker; the whole upper plumage, cheeks and ear-coverts uniform reddish brown, paler than the head; lesser wing-coverts with paler edges; quills brown, with a broad outer edging of reddish brown and an inner edging of the same, but paler; tertiaries nearly entirely reddish brown, the region of the shaft only being brown; median and greater wing-coverts reddish brown; tail brown, broadly edged with rufous externally and narrowly so internally; all the rectrices indistinctly rayed across; the underparts from the breast to the vent with the under wing-coverts a warm buff; the shafts of the feathers of the chin black and much lengthened.

Upper mandible pale horn-colour, lower pinkish flesh-colour; iris hazel-brown; eyelids and orbital skin greenish yellow; legs and feet pinkish brown; claws pinkish horn-colour.

Length 6·2 inches, tail 3·3, wing 2·4, tarsus ·9, bill from gape ·55. The female appears to be the same size.

Jerdon's Grass-Babbler was first discovered at Thayetmyo, at which place it has not, however, again been found.

It is very abundant in the Rangoon and Shwaygheen districts from the village of Wau, on the banks of the Pegu canal, northwards nearly up to Tonghoo. Laterally, it extends to the Pegu and Tonghoo road and to the Sittang river.

It has been found in a few places in India, viz. in Scinde by Mr. Blandford, in the Bhootan Doars by Mr. Mandelli, and in the Eastern Bengal hill-tracts by Col. Godwin-Austen. It is probably spread over the whole of the Indo-Burmese countries.

This Babbler appears to frequent nothing but immensely high, thick grass. I have never seen it in tree- or bush-jungle. It threads its way through the grass very quietly, and it is almost impossible to shoot it or

even to catch a glimpse of it. It has a peculiar series of notes, which it utters frequently and by which alone its presence can be detected. Its food, in the rains especially, appears to be chiefly grasshoppers. I have never been able to find the nest.

Genus STACHYRHIS, *Hodgs.*

49. STACHYRHIS NIGRICEPS.

THE BLACK-THROATED TREE-BABBLER.

Stachyrhis nigriceps, *Hodgs. J. A. S. B.* xiii. p. 378; *Jerd. B. Ind.* ii. p. 21; *Hume, Nests and Eggs*, p. 242; *Hume, S. F.* iii. p. 117; *Bl. B. Burm.* p. 116; *Oates, S. F.* v. p. 252; *Anders. Yunnan Exped.* p. 636; *Hume & Dav. S. F.* vi. p. 264; *Hume, S. F.* viii. p. 95.

Description.—*Male and female.* Whole top of the head from the bill to the nape blackish, each feather edged with white; a small circle round the eye white; chin and throat smoky white; cheeks pure white; ear-coverts rufous; the whole upper plumage with tail rufescent olive-brown, the inner webs of the quills plain brown; sides of neck and whole lower plumage fulvous. Specimens from Sikhim have the ear-coverts black, and intermediate varieties occur.

Bill bluish black on the upper mandible, pale bluish on the lower, the anterior half of the margins dusky; mouth flesh-colour; iris orange-brown; legs pale dusky green; claws yellowish.

Length 5·5 inches, tail 2, wing 2·2, tarsus ·85, bill from gape ·75.

The Black-throated Tree-Babbler occurs in the evergreen forests of the Pegu hills on the eastern spurs; but I did not find it common there, although I found two nests. Mr. Blyth gives it from Arrakan. Mr. Davison states that it is rare in Tenasserim, and he did not meet with it lower down than the town of Tenasserim.

It occurs in the hills east of Bhamo, and in Cachar and the hill-tracts of Eastern Bengal. It is also found in Sikhim and Nipal.

It nests at the beginning of April. The structure is placed in a hollow in the side of the bank of a nullah among dead leaves, and is constructed of bamboo-leaves loosely put together and lined with fine fibres. It is domed, with a hole at the side. The eggs are three in number and pure white in colour.

50. STACHYRHIS GUTTATA.

THE SPOTTED TREE-BABBLER.

Turdinus guttatus (Tick.), *Bl. J. A. S. B.* xxviii. p. 414; *Tick. J. A. S. B.* xxviii. p. 450; *Bl. B. Burm.* p. 116; *Walden, Ibis*, 1876, p. 353; *Hume & Dav. S. F.* vi. p. 264; *Hume, S. F.* viii. p. 95; *Bingham, S. F.* ix. p. 179. *Stachyrhis guttatus*, *Oates, S. F.* v. p. 251.

Description.—*Male and female.* Lores and forehead mixed white and black, the shaft and a portion of the web on either side being of the latter colour; a line beginning at the anterior corner of the eye, passing over the ear-coverts, thence widening so as to occupy the whole side of the neck and spreading to the back of the neck black, each feather having an elongated oval white spot in the middle; the black portions of these feathers, as they recede from the head, turning to ferruginous; crown of head and nape umber-brown tinged with golden, which imparts a gloss to the feathers; cheeks white; ear-coverts brown, bordered below by a white line connected with the cheeks; moustache black; chin and throat white; a patch under the ear-coverts, the breast and whole lower plumage ruddy ferruginous, paling on the centre of the abdomen, the feathers of the breast margined narrowly with white, and the shafts of the other parts albescent; back and scapulars umber-brown with a rufous tinge; rump and tail reddish brown; wings brown, the outer webs coloured like the tail; tertiaries wholly like the tail; underside of tail dull brown; a few of the feathers of the upper back tipped with a minute spot of white.

Legs and feet pale dingy green; lower mandible and edge of upper mandible along commissure plumbeous; rest of bill black; irides crimson-lake. (*Davison.*)

Length 6·5 inches, tail 2·2, wing 2·7, tarsus 1, bill from gape ·9. The female is about the same size.

The Spotted Tree-Babbler was first discovered by Col. Tickell on Moolleyit mountain, in Tenasserim. Mr. Davison met with it again at Meetan on the same mountain. My men procured a specimen at Malewoon, at the extreme south of that Division; and Capt. Bingham states that it occurs sparingly on the Dawna range and other parts of the western watershed of the Thoungyeen river. It appears to be everywhere a rather rare species.

Mr. Davison says:—"I have only met with this species on the low hills about and just to the north of Meetan, and even there they are not common. Unlike the two other species [*Gypsophila crispifrons* and *Turdinus brevicaudatus*], it does not affect rocky grounds, but the forests in general, and even where these are comparatively open, or composed to a great extent of bamboo, it may be found. It goes about in small parties, and keeps much to the undergrowth, but I have never seen it on the ground."

Genus MIXORNIS, *Hodgs.*

51. MIXORNIS RUBRICAPILLA.

THE YELLOW-BREASTED TREE-BABBLER.

Motacilla rubicapilla, *Tick. J. A. S. B.* ii. p. 576. **Mixornis rubicapilla**, *Wald. P. Z. S.* 1866, p. 547; *id. Ibis*, 1872, p. 376; *Jerd. B. Ind.* ii. p. 23. **Mixornis rubicapilla**, *Hume, Nests and Eggs*, p. 245; *Hume, S. F.* iii. p. 118; *Bl. B. Burm.* p. 114; *Oates, S. F.* v. p. 152; *Anders. Yunnan Exped.* p. 635; *Hume & Dav. S. F.* vi. p. 266; *Hume, S. F.* viii. p. 95.

Description.—*Male and female.* A line from the nostrils, produced back over the eyes, yellow; top of the head ferruginous; nape, back, rump, scapulars, wing-coverts and tail-coverts dull olive-green; tertiaries and the outer webs of the other quills rufescent brown; inner webs brown; tail brown, the outer webs tinged with rufescent brown; sides of the neck olive-green; ear-coverts pale yellow; chin, throat, cheeks and upper breast yellow, with black shaft-stripes; remainder of lower plumage paler yellow, tinged with ashy on the flanks and vent.

Iris dull white; eyelids plumbeous; bill horny brown; legs fleshy horn-colour; claws yellowish.

Length 5 inches, tail 2·1, wing 2·3, tarsus ·7, bill from gape ·75. The female is about the same size.

The Yellow-breasted Tree-Babbler is found commonly over the whole of Pegu, except perhaps in the drier portions between Thayetmyo and Prome. Mr. Blyth records it from Arrakan. Mr. Davison states that it is common in Tenasserim down to the thirteenth degree of latitude. Capt. Bingham remarks that it is also common in the Thoungyeen valley, and Capt. Wardlaw Ramsay found it in Karennee.

It ranges through the Indo-Burmese countries to Cachar and the hill-tracts of Eastern Bengal, and is found at low elevations in Assam, Bhootan, Sikhim, and Nipal. Colonel Tickell procured it in Central India.

This bird frequents only tree- and bush-jungle, and is not found in the grassy plains away from timber. It is generally seen alone or in pairs traversing bushes and trees in search of its insect food, and never descending to the ground. It has a monotonous metallic note which it utters for hours at a time, sitting on a bough concealed by leaves.

This Babbler nests in June and places its nest either in a bush or on a stump of a tree, or even in a pine-apple plant. It is generally made of bamboo-leaves lined with grass, or entirely of grass. In shape it is globular, with a hole at the side. The eggs, three in number, are white speckled with red.

52. MIXORNIS GULARIS.

THE SUMATRAN YELLOW-BREASTED TREE-BABBLER.

Motacilla gularis, *Raffl. Trans. Linn. Soc.* xiii. p. 312; *Horsf. Zool. Res. in Java*, pl.

Mixornis gularis, *Wald. P. Z. S.* 1866, p. 548; *id. Ibis*, 1872, p. 376; *Hume & Dav. S. F.* vi. p. 266; *Hume, S. F.* viii. p. 95.

Description.—*Male and female.* Resembling *M. rubricapilla* in general, but differing in the following particulars. The marks on the chin, throat and upper breast are not mere shaft-lines but broad well-defined streaks; the line from the nostrils over the eye is pale yellow and the shafts are conspicuously black; the ferruginous of the head is very dark, approaching chestnut; the upper plumage, olive-green in *M. rubricapilla*, is in the present species rufescent, without a tinge of green; the tail and wings are a deep rufescent brown.

Rather smaller than the preceding species.

The Javan species, *M. javanica*, is uniform deep rufous, almost chestnut, above; the sides of the head are brown, and the streaks below are very broad. Another species from Java, *M. flavicollis*, is uniform rufous above, the sides of the head are grey, and the throat and breast are fulvous with obsolete shaft-streaks. *M. borneensis* is very similar to *M. javanica*, but has the throat and breast pure white with broad black streaks. *M. woodii* from Palawan resembles *M. rubricapilla*, but the sides of the head are greyish brown and the wings deep rufous.

The Sumatran Yellow-breasted Tree-Babbler occurs in Tenasserim from about Mergui down to the southern extremity of the Division, where it appears to be common.

It extends down the Malay peninsula to Sumatra, and Dr. Tiraut records it from Cochin China.

In habits it does not appear to differ from its allied congener, *M. rubricapilla*.

53. MIXORNIS ERYTHROPTERA.

THE RED-WINGED TREE-BABBLER.

Timalia erythroptera, *Bl. J. A. S. B.* xi. p. 794; *Hume, S. F.* iii. p. 322.

Cyanoderma erythropterum, *Salvad. Ucc. Born.* p. 213; *Tweed. Ibis*, 1877, p. 308; *Hume & Dav. S. F.* vi. p. 269; *Hume, S. F.* viii. p. 95, ix. p. 129.

Mixornis erythroptera, *Sharpe, Cat. Birds B. Mus.* vii. p. .

Description.—*Male and female.* Forehead, supercilium, ear-coverts, sides of the head and neck, chin, throat and breast extending to the

upper part of the abdomen clear plumbeous ; abdomen, flanks, vent and under tail-coverts fulvous brown ; upper plumage rufescent brown ; wing-coverts, wings and tail bright ferruginous.

The bill is dark plumbeous blue ; the upper mandible darkest, in some brownish ; visible skin of cheeks and orbits from pure light to dull dirty smalt-blue ; irides madder-red to deep brown ; legs, feet and claws very pale, almost white, tinged with greenish or yellowish green. (*Davison*.)

Length 5·5 inches, tail 2, wing 2·3, tarsus ·8, bill from gape ·7. The female is about the same size.

The Red-winged Tree-Babbler was procured in Tenasserim by Mr. Davison, who states that it is common in the extreme south of the Division. It ranges down the Malay peninsula to the islands of Sumatra and Borneo.

According to Mr. Davison it is found in small parties in the evergreen forest, frequenting brushwood and trees and never descending to the ground. He found the nest in April : it was a ball about 6 inches in diameter, composed of dry reed-leaves, and the entrance to it was a circular aperture at one side. It did not contain any eggs. The nest was placed in a bush about 4 feet from the ground.

Timelia bicolor, Bl., was long thought to be the male and the present bird the female of the same species. It has been conclusively shown by Mr. Hume that the two sexes of this bird are alike in plumage and that *T. bicolor* is a distinct species.

Genus STACHYRIDOPSIS, *Sharpe* *.

54. STACHYRIDOPSIS CHRYSEA.

THE GOLDEN-HEADED TREE-BABBLER.

Stachyrhis chrysæa, *Hodgs. J. A. S. B.* xiii. p. 379 ; *Jerd. B. Ind.* ii. p. 22 ; *Hume, Nests and Eggs*, p. 245 ; *Bl. & Wald. B. Burm.* p. 116 ; *Anders. Yunnan Exped.* p. 637 ; *Hume, S. F.* viii. p. 95. **Stachyridopsis chrysea**, *Sharpe, Cat. Birds B. Mus.* vii. p. .

Description.—*Male and female.* Whole upper plumage olive-yellow, the feathers of the top of the head with mesial broad black streaks ; wings brown, the outer edges of the feathers olive-yellow ; tail olive-brown, the outer margins olive-yellow ; lores and in front of eye black ; ear-coverts olive-yellow ; the whole lower plumage bright yellow.

* I have had the advantage of working up the difficult Timeline group at the same time that Mr. Sharpe was engaged upon it for his forthcoming volume of the British Museum Catalogue. I avail myself with pleasure of Mr. Sharpe's rectifications of genera.

Bill plumbeous; legs pale brownish yellow; irides light brown. (*Jerdon.*)

Length 4·5 inches, tail 2, wing 2, tarsus ·75, bill from gape ·65.

An allied species is *S. poliogaster*, Hume (*S. F.* ix. p. 116), from the Malay peninsula, with a grey face and grey underparts.

The Golden-headed Tree-Babbler is stated by both Dr. Jerdon and Mr. Blyth to have occurred in Arrakan.

Dr. Anderson met with it near Bhamo, and it also occurs in the hill-tracts of Eastern Bengal, Sikhim and Nipal up to an elevation of about 5000 feet.

This species appears to be abundant wherever it is met with, but there is little on record about it. Dr. Jerdon says that it frequents high trees generally, feeding on the minute insects that infest flowers and buds, and often has its forehead powdered with the pollen of flowers.

55. STACHYRIDOPSIS ASSIMILIS.

THE ALLIED TREE-BABBLER.

Strachyrhis assimilis, *Wald. in Bl. B. Burm.* p. 116. **Stachyrhis assimilis**, *Hume, S. F.* v. p. 56; *Hume & Dav. S. F.* vi. pp. 265, 514; *Hume, S. F.* viii. p. 95. **Stachyridopsis assimilis**, *Sharpe, Cat. Birds B. Mus.* vii. p. .

Description.—*Male and female.* Somewhat similar to *S. chrysea*, but differs in having the back, scapulars, rump, upper tail-coverts and the margins to the wing- and tail-feathers greenish brown instead of olive-yellow. The chin, throat and breast are yellow, but not so bright as in *S. chrysea*, and the remainder of the lower plumage is dull greenish yellow. The yellow of the head is also very dull.

It is of the same size as the preceding species. Mr. Davison states that the legs and feet are fleshy yellow; upper mandible brown; lower mandible pale plumbeous, fleshy at base; irides deep red-brown. Capt. Wardlaw Ramsay gives the iris as lake; bill lavender, pink at base of mandible; legs brownish yellow; feet greenish.

The Allied Tree-Babbler was discovered by Capt. Wardlaw Ramsay in Karennee at 2800 feet elevation. I have examined his specimens and find them to be identical with a series of birds sent to England by Mr. Hodgson from Nipal or Sikhim. This gentleman did not, however, discriminate the species. Mr. Davison found it on the higher slopes of Mooleyit in Tenasserim and also at the foot of Nwalabo in the same Division. He says that they were always in small parties, hunting about the brushwood, and that he never heard them utter any note.

56. STACHYRIDOPSIS RUFIFRONS.

HUME'S TREE-BABBLER.

Stachyrhis rufifrons, *Hume, S. F. i. p. 479, iii. p. 117; Wald. in Bl. B. Burm.* p. 116; *Brooks, S. F. iv. p. 274; Hume, S. F. iv. p. 501; Hume & Dav. S. F. vi. p. 265; Hume, S. F. viii. p. 95; Bingham, S. F. ix. p. 179. Stachyridopsis rufifrons, Sharpe, Cat. Birds B. Mus. vii. p. .*

Description.—*Male and female.* Forehead and crown chestnut, the feathers with blackish shafts. Whole upper plumage, wings and tail olive-brown, the inner webs of the wing-quills being plain brown; chin and throat whitish with black shafts; lores, supercilium, sides of face and neck and whole lower plumage fulvous brown. In some birds the upper plumage, and especially the tail, is tinged with rufous. Capt. Bingham states that the female differs from the male in having the rufous of the forehead and head paler.

Bill blue; iris deep red; eyelids plumbeous; legs fleshy brown; claws pale horn-colour.

Length 4·5 inches, tail 1·9, wing 2·1, tarsus ·7, bill from gape ·55. The female is very little smaller than the male.

I discovered Hume's Tree-Babbler in the Pegu hills in 1873, and sent it to Mr. Hume who described it. I found it in the forests on the western spurs of the hills, frequenting brushwood in a nullah, but I had no opportunity for observing its habits.

Mr. Davison found it sparingly distributed throughout Tenasserim; Capt. Bingham records it from the Thoungyeen valley; and Capt. Wardlaw Ramsay obtained a bird in Karennee which was probably of this species.

It has also been procured in the Bhootan Dooars at the foot of the Himalayas, and in the British Museum is a specimen from Cachar.

This species is very closely allied to *S. ruficeps* of the Himalayas. It differs from that species in not having the chestnut of the head reaching to the nape, in the upper plumage being less green, in the lower plumage wanting the strong yellow tinge of *S. ruficeps*, and in being smaller. *S. præcognita*, from China, is another closely allied race, having the chestnut of the head limited in extent as in *S. rufifrons*, but with the lower plumage of *S. ruficeps*.

Genus MALACOPTERUM, *Eyton*.

57. MALACOPTERUM MAGNUM.

THE RED-HEADED TREE-BABBLER.

Malacopteron magnum, *Eyton*, *P. Z. S.* 1839, p. 103; *Salvad. Ucc. Born.* p. 226; *Hume & Dav. S. F.* vi. p. 270; *Hume, S. F.* viii. p. 95. **Malacopteron majus**, *Bl. J. A. S. B.* xvi. p. 461; *Salvad. Ucc. Born.* p. 225; *Tweedd. Ibis*, 1877, p. 309.

Description.—*Male and female.* Lores and a broad supercilium grey, the centres of the feathers being more or less whitish; forehead and crown bright ferruginous, the anterior feathers black-shafted and the posterior ones faintly edged with black; a large patch on the nape black; ear-coverts fulvous brown, with pale shafts; whole upper plumage olive-brown, tinged with ferruginous on the rump; the inner webs of the wing-quills plain brown; upper tail-coverts, the central pair of tail-feathers and the outer webs of all the others ferruginous; the outermost pair of rectrices and the inner webs of all the others except the centre pair plain brown; cheeks mottled grey and white; chin, throat and upper breast white streaked with grey; remainder of lower plumage greyish white.

The legs, feet and claws are blue, varying in shade from pale plumbeous to pale smalt-blue; the upper mandible is dark horny brown, the lower mandible, and often the edges of the upper mandible, are plumbeous blue or white tinged with blue, fading to bluish white at the tip; the irides vary from carmine to orange-red, I think according to age, as a younger bird has them pale sienna-brown. (*Davison*.)

Length 7 inches, tail 3, wing 3·5, tarsus ·9, bill from gape 1. The female is considerably smaller.

The Red-headed Tree-Babbler has been found rarely in the extreme south of Tenasserim by Mr. Davison.

It extends down the Malay peninsula and occurs in Sumatra and Borneo.

This Babbler appears to be a tree bird, never, as far as Mr. Davison has observed, descending to the ground. It goes about in pairs or small parties, hunting about in the bushes for its insect food. A closely allied species is *M. cinereum* which occurs in the Malay peninsula, but has not yet been procured in Tenasserim. In this species, which is smaller than *M. magnum*, the ferruginous feathers of the head are broadly terminated with black and the frontal feathers are not black-shafted. The throat and upper breast are unstreaked.

58. MALACOPTERUM MAGNIROSTRE.

THE BROWN-HEADED TREE-BABBLER.

Alcippe magnirostris, Moore, *P. Z. S.* 1854, p. 277. *Malacopteron magnirostris*, Hume & Dav. *S. F.* vi. p. 274; Hume, *S. F.* viii. pp. 61, 96.

Description.—*Male and female.* Forehead grey, the shafts black; lores and an indistinct stripe over the eye grey; ear-coverts greyish brown, the shafts white; whole summit of head olive-brown, the shafts slightly darker; wing-coverts, back, scapulars, rump and wings olive-brown tinged with fulvous, the inner webs of the quills plain brown; tail-coverts and tail ferruginous, brightest on the coverts and the outer webs of the quills at the base of the tail; a band down each side of the throat dark grey-brown; chin and throat white tinged with ashy at the base of the throat; remainder of lower plumage white washed with ashy, especially on the flanks and under tail-coverts.

Legs, feet and claws pale bluish, sometimes a little darker and more plumbeous; upper mandible dark horny brown, almost black in some; lower mandible bluish white, pale blue or plumbeous; gape dull yellow; irides red, varying from cinnabar to lake, and lake to crimson. (*Davison.*)

Length 7 inches, tail 3, wing 3.1, tarsus .85, bill from gape .8. The female is rather smaller.

The Brown-headed Tree-Babbler was found in the extreme south of Tenasserim by Mr. Davison, who states that it was common there.

It occurs in the Malay peninsula down to Johore and is recorded from Cochin China by Dr. Tiraut.

According to Mr. Davison this species is usually found in small parties, hunting about the brushwood and tops of the smaller trees for insects. It does not descend to the ground.

Genus TRICHOSTOMA, *Blyth*.

59. TRICHOSTOMA ROSTRATUM.

BLYTH'S THRUSH-BABBLER.

Trichastoma rostratum, *Bl. J. A. S. B.* xi. p. 795; *id. Cat. B. Mus. As. Soc.* p. 147; Hume, *S. F.* viii. pp. 60, 160, & ix. pp. 109, 127. *Brachypteryx macroptera*, *Salvad. Atti R. Ac. Sc. Tor.* iii. p. 528. *Brachypteryx umbratilis*, *Temm. apud Salvad. Ucc. Born.* p. 220.

Description.—*Male and female.* The whole upper plumage olive-brown, tinged with rufescent, especially on the rump; rump-feathers very long and

soft, the basal two thirds of each of them being white but not showing through when the feathers are properly disposed ; the inner webs of the quills of the wing plain brown ; ear-coverts with the shafts paler ; whole lower plumage white, tinged with pale grey across the breast, the sides of the neck and flanks.

Length 5·5 inches, tail 2·1, wing 2·75, tarsus 1, bill from gape ·9. The female is rather smaller.

My men procured at Malewoon, in the extreme south of Tenasserim, a bird which is undoubtedly identical with the species usually known by the name of *Brachypteryx umbratilis*, with a large series of which in the British Museum I have compared it.

Trichastoma rostratum of Blyth has always been rather a mysterious bird. The types are in the Calcutta Museum ; and I have consequently not been able to examine them. Count Salvadori doubtfully identifies this bird with *Setaria affinis* ; but in my opinion the descriptions and dimensions of the two birds do not fit at all well. Mr. Hume asserts that he has procured the true *T. rostratum* in the Malay peninsula, having compared his specimens with the types. Such being the case, it is to be regretted that he did not give a carefully drawn-up description of the species.

After a careful and prolonged inquiry into the matter, entailing the examination of almost every known species of the Timeline birds, I have arrived at the conclusion that my Tenasserim bird and *B. umbratilis* are both to be referred to *T. rostratum*. Mr. Blyth's description fortunately happens to be a very clear one ; and I cannot arrive at any other conclusion. I may add that the bird I identify with *T. rostratum* has the rictal bristles of very great length, and that this character would suggest to Blyth the name of *Trichastoma* for the genus.

Blyth's Thrush-Babbler, as before stated, was procured at Malewoon, in the south of Tenasserim, by my men, who were sent to that place to make a collection of birds. If my identification is correct, this bird has also been found in the Malay peninsula at Klang and Malacca, and in the island of Borneo.

Nothing whatever is known of its habits.

60. TRICHOSTOMA FERRUGINOSUM.

THE FERRUGINOUS THRUSH-BABBLER.

Malacopteron ferruginosum, *Bl. J. A. S. B.* xiii. p. 383; *Salvad. Ucc. Born.* p. 228; *Hume & Dav. S. F.* vi. p. 273; *Hume, S. F.* viii. p. 96.

Description.—*Male and female.* The whole upper plumage bright ferruginous, the inner webs of the wing-quills being plain brown; upper tail-coverts and tail chestnut; lores pale fulvous; sides of the head paler ferruginous than the upper plumage; the whole lower plumage pale buffy or isabelline.

Legs and feet fleshy white; upper mandible dirty white; lower mandible dark brown; irides pale wood-brown. (*Davison.*)

Length 6·5 inches, tail 2·3, wing 3, tarsus 1, bill from gape ·85.

The Ferruginous Thrush-Babbler has occurred only in the extreme south of Tenasserim at Malewoon and on the Pakchan, where it appears to be rare.

It has been found at Malacca, and it probably occurs throughout the Malay peninsula. It also inhabits Borneo.

Mr. Davison states that it keeps habitually on the ground, only flying up into the bushes and trees when disturbed, and that it inhabits dense forests.

Genus TURDINUS, *Blyth.*

61. TURDINUS ABBOTTI.

ABBOTT'S THRUSH-BABBLER.

Malaccocincla abbotti, *Bl. J. A. S. B.* xiv. p. 601. **Trichastoma abbotti**, *Jerd. B. Ind.* ii. p. 17; *Bl. & Wald. B. Burm.* p. 115; *Oates, S. F.* v. p. 151; *Tweedd. Ibis*, 1877, p. 452, pl. xi. f. 2; *Hume & Dav. S. F.* vi. p. 259; *Hume, S. F.* viii. p. 95. **Malacopteron olivaceum***, *Strickl. Ann. Nat. Hist.* ser. 1, xix. p. 132; *Hume, S. F.* ix. p. 108.

Description.—*Male and female.* The lores, an eye-streak extending to the ear-coverts, and the feathers of the eyelids, forming a conspicuous circle round the eye, grey; the whole upper surface olive-brown, the shafts of the feathers paler and the rump brighter and tinged with ferruginous;

* The type of this does not appear to be in the Strickland collection, for it is not mentioned by Mr. Salvin in his Catalogue.

upper tail-coverts and tail uniform, rather bright, ferruginous ; quills dark brown on the inner webs, olive-brown on the outer ; the greater coverts the same ; the lesser ones olive-brown, centred darker ; throat, cheeks and upper breast pale grey ; ear-coverts, sides of the neck, lower breast and sides of the body earthy ferruginous ; the abdomen paler, slightly albescent ; under tail-coverts deep ferruginous ; under wing-coverts earthy brown.

The plumage is liable to much variation, being more ferruginous in some than in others ; and the eye-streak is frequently absent.

Iris reddish brown ; eyelids deep plumbeous ; upper mandible dark brown, except the tip and the terminal third of the margins, which, together with the lower mandible, are pale bluish ; mouth yellow ; legs and feet pinkish fleshy ; claws pale horn-colour.

Length 6·5 inches, tail 2, wing 2·9, tarsus 1, bill from gape ·9. The female is rather smaller.

Abbott's Thrush-Babbler has been procured in the island of Ramree, on the Arrakan coast. I have found it abundant all over the southern portion of Pegu in suitable localities ; and Capt. Wardlaw Ramsay observed it at Tonghoo and at the foot of the Karin hills. In Tenasserim Mr. Davison states that it is common from a little north of Moulmein down to the extreme southern point of the Division. At this latter place my men procured numerous specimens.

Southwards it appears to extend down to Malacca and Nealys in the Malay peninsula, and northwards to the hill-tracts of Eastern Bengal and to Nipal.

This Babbler is only found in the thickest vegetation, evergreen forest by preference, and also in pine-apple gardens and thick secondary jungle. It keeps to the ground generally, but at times may be seen tolerably high up in trees, searching the leaves for insects. It has a very pretty call, which it constantly utters. Although not gregarious, numerous birds are generally met with in the same patch of jungle. In May and June it constructs a cup-shaped nest of dead leaves lined with black fern-roots, placing it near the ground in a thick bush or dwarf palm. The eggs, three in number, are exceedingly beautiful, being a pale salmon-pink with scrawls and marks of deep purple.

62. **TURDINUS BREVICAUDATUS.**

THE SHORT-TAILED THRUSH-BABBLER.

Turdinus brevicaudatus, *Bl. J. A. S. B.* xxiv. p. 272; *Bl. B. Burm.* p. 115; *Hume & Dav. S. F.* vi. p. 262; *Godwin-Aust. J. A. S. B.* xlvii. pt. ii. p. 16; *Hume, S. F.* vii. p. 462; *Bingham, S. F.* ix. p. 179. **Turdinus brevicauda** (*Tick.*), *Wald. Ibis*, 1876, p. 354.

Description.—*Male and female.* Lores, supercilium and cheeks grey; ear-coverts brown, with lighter shafts; head, back, scapulars and rump olive-grey, with the shafts lighter and each feather margined with blackish brown; chin and throat streaked with white and dusky; lower plumage ferruginous brown, darker on the flanks and paler and brighter on the abdomen; rump and tail olive-brown, with a rufous tinge; wing-coverts and quills olive-brown, the inner webs of the quills plain brown; a minute terminal white spot on each of the tertiaries and some of the greater coverts.

Legs, feet and claws pale brown to pale fleshy brown; upper mandible very dark brown; lower mandible plumbeous to pale plumbeous; irides deep brown, red-brown, cinnamon-red. (*Davison.*)

Length 5·5 inches, tail 1·9, wing 2·4, tarsus ·95, bill from gape ·8. The female is about the same size.

Turdinus striatus from Assam is closely allied. It is much less rufous below, and the spots on the wings are rufous, not white. I have not been able to examine a specimen of *T. garoensis*.

The Short-tailed Thrush-Babbler is a very local species, having hitherto been found only on the higher slopes of Mooleyit in Tenasserim, above an elevation of 5000 feet.

Mr. Davison says:—"I have only met with this *Turdinus* at Mooleyit and its slopes, from 5000 feet and upwards. The slopes of the Mooleyit hills are very generally covered with masses or boulders of rocks of all sizes lying about in chaotic confusion; and in such situations, and in such only, is this species found, hopping about on and amongst the rocks and turning over the leaves in its quest for insects. Like the last it occurs in small parties, in pairs, and occasionally singly. When disturbed it utters a long-drawn *kir-r-r*, and keeps on uttering it till the cause of its disturbance has passed or it has retreated into safer quarters. Unless suddenly alarmed, it seldom flies, but retreats by hopping rapidly away. I have never heard this bird sing, as I have heard *T. crispifrons* do.

"Of course these rocky slopes that the bird frequents are densely wooded. I have never seen the bird anywhere in the open, or in any place that was not rocky as well as wooded. The species may be said to be rare even when it does occur."

Genus GYPSOPHILA*, *Oates*.

63. GYPSOPHILA CRISPIFRONS.

THE LIMESTONE THRUSH-BABBLER.

Turdinus crispifrons, *Bl. J. A. S. B.* xxiv. p. 269; *Bl. B. Burm.* p. 114; *Wald. Ibis*, 1876, p. 353; *Hume, S. F.* v. p. 87; *Hume & Dav. S. F.* vi. p. 262; *Hume, S. F.* viii. p. 95; *Bingham, S. F.* ix. p. 179.

Description.—*Male and female.* The whole top of the head, the upper side of neck, the back and scapulars olive-brown, each feather edged with blackish; wing-coverts, wings, rump, upper tail-coverts and tail plain olive-brown, the inner webs of the wing-quills darker brown, and each of the tertiaries tipped with a minute spot of white; the tail obsoletely barred darker; a very indistinct grey stripe over the eye; the ear-coverts olive-brown, with the shafts whitish; chin, throat and upper breast mingled brown and white, the brown presenting the appearance of stripes; remainder of lower surface brown, tinged with ochraceous, the middle of the abdomen being more or less buffy white.

The above appears to be the plumage in summer. In the winter the forehead, lores, supercilium, chin, throat, sides of the head and neck, a portion of the breast and a collar at the back of the neck are pure white. It is, however, by no means clear whether the changes of plumage this bird undergoes are seasonal or whether they are due to age. Mr. Hume thinks it quite possible that they may be seasonal. I have only been able to examine three specimens, and cannot hazard an opinion.

The irides were "red, mostly deep red or rhubarb-red, in a few light red; the upper mandible varied from black to dark brown, the lower from pale to *very* pale plumbeous; the legs were a more or less dark brown, always tinged with red or purple of varying shades." (*Davison*.)

Length 7·5 inches, tail 3, wing 3·2, tarsus 1·1, bill from gape 1. The female is about the same size.

The Limestone Thrush-Babbler is apparently confined to the clusters of limestone rocks found in the central portion of Tenasserim, at such places as Wimpong and the neighbourhood of Moulmein. It has not yet been found elsewhere.

Mr. Davison remarks:—"This *Turdinus* is entirely confined to the ranges of limestone rocks that occur in Tenasserim. They are found singly, or occasionally in pairs, but more often in small parties about the rocks from

* I propose this generic name for the bird hitherto known as *Turdinus crispifrons*. Neither its structure nor its coloration permit it to be placed in any genus known to me.

their bases to their summit, and never wandering away from the rocks even for a few yards.

“They are excessively lively, sprightly birds, keeping up continually a twittering, chattering note; and occasionally one will perch itself on some point of rock and, with lowered wings and erected tail, pour forth a fine and powerful song. They feed principally upon insects and small land-shells; but I have found small white round seeds, about the size of mustard-seed, in their stomachs. When shot, unless killed outright, they at once scramble into one of the numerous holes or crevices with which these rocks are everywhere honeycombed, and are of course lost. They are not shy birds, and from the limited nature of their habitats are not difficult to procure.”

Genus **TURDINULUS**, *Hume*.

64. TURDINULUS MURINUS.

ROBERT'S GROUND-BABBLER.

Myiothera murina (*S. Mill.*), *Bl. Ibis*, 1865, p. 47. **Pnoepyga roberti**, *Godwin-Austen & Wald. Ibis*, 1875, p. 252; *Hume*, *S. F.* iv. p. 218. **Turdinulus roberti**, *Hume & Dav. S. F.* vi. p. 234; *Hume*, *S. F.* viii. p. 93. **Turdinulus murina**, *Hume*, *S. F.* ix. p. 115.

Description.—The head, nape, back and scapulars olive-brown, the region of the shaft much paler, and each feather edged with blackish; rump-feathers very ample and soft, plain ferruginous olive-brown; a broad and distinct supercilium fulvous; a spot in front of the eye brown; ear-coverts mixed fulvous and brown; cheeks fulvous, tipped with blackish; chin and throat fulvous white; breast and abdomen fulvous brown, the centres of the feathers paler, and some of the feathers of the breast with triangular brown spots near the tips; flanks, vent and under tail-coverts ochraceous buff; lesser wing-coverts olive-brown, tipped paler; greater and median coverts reddish brown, each feather tipped with white; wing brown on the inner webs and russet-brown on the outer webs, the tertiaries and some of the secondaries tipped with white; tail reddish brown.

The above description is taken from one of the type specimens in Capt. Wardlaw Ramsay's collection. According to Mr. Hume the coloration of these birds is subject to great variation. He says:—"The general shade of colour of the birds also varies a good deal; some are paler, some darker, some have the long superciliary stripe and the entire throat buff colour, and the entire breast and abdomen olive-brown, the feathers streaked centrally with buffy white, and no pale unstreaked patch in the middle of the abdomen. Others have the supercilium and the entire throat and

even part of the breast white, and the greater part of the abdomen unstreaked white, clouded with the same brownish rufescent buff that covers the throat of the specimens at the other end of the scale, and with the brown striated feathers almost confined to the sides of the breast and flanks. The two types look rather different at first sight, but they run into each other, and the birds are structurally identical."

The legs, feet and claws vary from pale brown and brown to pale fleshy brown and dusky fleshy; the upper mandible from brown to black, the lower mandible pale to dark plumbeous; the irides brown to light brown, to cinnabar, or again sienna-brown and to deep brown. (*Davison*.)

Length about 4·5 inches, tail 1, wing 2·1, tarsus ·9, bill from gape ·8. The sexes do not appear to differ in size.

This Babbler is only known to occur in Burmah, in Tenasserim, on Mooleyit mountain at elevations of 5000 feet and upwards.

It has been procured at Klang and Selangore in the Malay peninsula and in Sumatra. Colonel Godwin-Austen got it in Munipore, and it probably will be found in the higher hill-ranges of Arrakan and the Indo-Burmese countries.

Mr. Davison observes that they were generally seen in pairs, occasionally three or four together, hopping about on the ground or about the stems of the undergrowth only in the densest portions of the forest. They are not shy and do not fly unless very closely pressed.

Genus DRYMOCATAPHUS, *Blyth*.

65. DRYMOCATAPHUS NIGRICAPITATUS.

THE BLACK-HEADED GROUND-BABBLER.

Brachypteryx nigrocapitata, *Eyton*, *P. Z. S.* 1839, p. 103. **Drymocataphus nigricapitatus**, *Salvad. Ucc. Born.* p. 219; *Tweedd. Ibis*, 1877, p. 308; *Hume & Dav. S. F.* vi. p. 275; *Hume, S. F.* viii. p. 96.

Description.—*Male and female.* The lores, a broad supercilium reaching to the nape, and the cheeks grey, each feather with a white shaft-stripe; ear-coverts ashy rufous with whitish shafts; a moustachial stripe black; chin and throat white; sides of neck and whole lower plumage ferruginous, brightest on the breast, and tinged with brown on the flanks, lower abdomen, vent and under tail-coverts; forehead and top of head to nape black; the whole upper plumage, wings and tail deep ferruginous brown, the inner webs of the wing-quills being plain brown.

Writing of two birds procured in Tenasserim, Messrs. Hume and

Davison say :—"The legs and feet in the first were fleshy white, slightly tinged with brown, in the second reddish horny ; in both the upper mandible was black, the lower mandible fleshy white ; irides rhubarb-red."

Length 7 inches, tail 2·4, wing 2·7, tarsus 1·2, bill from gape ·9.

The Black-headed Ground-Babbler occurs as a very rare straggler in the extreme south of Tenasserim, at Bankasoon and Malewoon. It extends down the Malay peninsula and is found in Sumatra.

This Babbler appears, from Mr. Davison's observations, to be found always on the ground and singly or in pairs. They are shy birds, frequenting only the densest portion of the forest, and specially addicted to dense cane-brakes. Their food consists of insects, such as ants and their larvæ &c.

66. DRYMOCATAPHUS TICKELLI.

TICKELL'S GROUND-BABBLER.

Pellorneum tickelli, *Bl. J. A. S. B.* xxviii. p. 414 ; *Hume, S. F.* iii. p. 119 ; *Bl. B. Burm.* p. 114 ; *Oates, S. F.* iv. p. 406 ; *Tweedd. Ibis*, 1877, pp. 386, 451, pl. xi. f. 1 ; *Hume, Ibis*, 1878, p. 114 ; *Hume & Dav. S. F.* vi. pp. 277, 514 ; *Hume, S. F.* viii. p. 96 ; *Oates, S. F.* x. p. 207. **Mixornis olivaceus**, *Tickell, J. A. S. B.* xxviii. p. 449. **Trichastoma minor**, *Hume, S. F.* ii. p. 535 ; *Wald. in Bl. B. Burm.* p. 115 ; *Hume & Dav. S. F.* vi. p. 259 ; *Hume, S. F.* viii. p. 95 ; *Bingham, S. F.* ix. p. 179. **Drymocataphus fulvus**, *Wald. Ann. Nat. Hist.* ser. 4, xv. p. 401 ; *Hume, S. F.* iii. p. 403, v. p. 59. **Alcippe tickelli**, *Godwin-Austen, Proc. A. S. Beng.* 1877, p. 146. **Drymocataphus tickelli**, *Sharpe, Cat. Birds B. Mus.* vii. p. .

Description.—*Male and female.* Whole upper plumage olive-brown with a tinge of rufous throughout, the forehead fulvescent, the feathers of the head paler shafted ; ear-coverts, cheeks and whole underparts (except the centre of the abdomen, which is white) clear fulvous ; wings dark brown, the outer edges pale fulvous ; tail fulvous brown, the outer edges brighter.

Bill dusky above, pale flesh-colour beneath ; mouth yellow ; iris reddish brown ; eyelids greenish flesh-colour ; legs and claws fleshy white.

Length 6 inches, tail 2·2, wing 2·4, tarsus 1, bill from gape ·8. The female is considerably smaller.

This bird has given rise to much controversy. Being one of very plain plumage and little known till recently, it was but natural that opinions regarding it should be conflicting. The subject has, however, been lately well ventilated. I have carefully gone into the question with Mr. Sharpe, and the above quotations may be accepted as relating to one and the same species. I am, however, at a loss to determine what bird is referred to by Messrs. Hume and Davison under the title of *Pellorneum tickelli* (*S. F.* vi. p. 277), inasmuch as the true *P. tickelli* has been already fully

dealt with by those gentlemen under the title of *Trichastoma minor* (t. c. p. 259). Mr. Hume, contrary to his usual practice, gives no details of this interesting bird, the rarity of which may be judged from the fact that Mr. Davison procured only one specimen in Tenasserim during many years' collecting.

I have not been able to examine the types of *Pellorneum ignotum*, Hume, *Turdinus garoensis*, Godwin-Austen, and *T. nagaensis*, Godwin-Austen; they are all very similar, and are probably identical with *P. tickelli*. Mr. Hume, indeed (S. F. vii. p. 143), identifies *T. garoensis* with *P. ignotum*; and a specimen from Assam of what I believe to be the latter species, and which I had the opportunity of examining, did not appear to me to differ in any respect from *P. tickelli*, except in having the upper plumage darker.

Tickell's Ground-Babbler occurs plentifully on the eastern spurs of the Pegu hills in those portions which are covered with evergreen forest. Mr. Davison states that it is met with in the central and southern portions of Tenasserim, and he procured specimens from Thoungya Sakan down to Laynah. Capt. Bingham observed it in the Meplay choung, a tributary of the Thoungyeen river. Mr. Limborg also secured specimens near Meetan. Capt. Wardlaw Ramsay obtained this species in Karennee at an elevation of 2500 feet, and his specimens were described under the name of *Drymocataphus fulvus*.

Mr. Hume states that this species occurs in Assam, from which province he sent me a specimen. This Assam bird, however, does not appear to agree well with the Burmese bird.

This obscure Babbler is found frequenting the ground in brushwood and tangled thickets in the deepest valleys. Although confined (as far as my own observations go) to evergreen jungle, Mr. Davison appears to have observed them also in bamboo- and secondary scrub-jungle. I have no recollection of having heard its note; but Mr. Davison assures us it resembles that of *Turdinus abbotti*. Capt. Bingham found the nest in the Thoungyeen valley on the 15th March—a domed structure placed in a cane-bush about one foot from the ground. It was made of dry bamboo-leaves and lined with fine roots, and contained three eggs which were white dotted with pink.

67. DRYMOCATAPHUS RUBIGINOSUS.

THE RUFOUS GROUND-BABBLER.

Trichastoma rubiginosa, Wald. *Ann. Nat. Hist.* ser. 4, xv. p. 402; *id. in Bl. B. Burm.* p. 115; *Hume, S. F.* iii. p. 404, viii. p. 95. *Drymocataphus rubiginosus*, Sharpe, *Cat. B. Brit. Mus.* vii. p. .

Description. The whole upper plumage olive-brown, the wings rufescent

on the outer webs; chin and throat white; the whole lower plumage bright ferruginous.

Iris light brown; bill blackish brown above, pale below, yellowish at gape; legs dull pinkish white.

Length about 7 inches, tail 2·6, wing 3·1, tarsus 1·3, bill from gape ·95.

The only specimens of this species which are known are two in the collection of Capt. Wardlaw Ramsay, who procured them in Karennee. They appear to be young birds, and the bills seem to have been soft and not fully matured. They nevertheless clearly belong to this genus and not to *Trichostoma*.

Nothing is known of the habits of this species. The colour of the soft parts is noted from the label attached to one of the Karennee specimens.

Genus PELLORNEUM, *Swains*.

68. PELLORNEUM SUBOCHRACEUM.

THE BURMESE STRIATED GROUND-BABBLER.

Pellorneum subochraceum, *Swinhoe*, *Ann. Nat. Hist.* ser. 4, vii. p. 257; *Tweedd.* *Ibis*, 1877, pp. 385, 452, pl. x.; *Hume & Dav. S. F.* vi. p. 278; *Hume, S. F.* viii. p. 96. **Pellorneum minor**, *Hume, S. F.* i. p. 298, iii. p. 120; *Bl. B. Burm.* p. 114; *Oates, S. F.* iv. p. 406, v. p. 154.

Description.—*Male and female.* Head from forehead to nape light chestnut, the feathers of the forehead with blackish shafts and tips; lores fulvous white, the shafts black; a broad superciliary stripe reaching to the nape creamy buff; the feathers immediately over the eye tipped brownish; feathers under the eye and the ear-coverts fulvous, surrounded by dusky; the whole upper plumage, including the wings and tail, olive-brown, the outer webs of the primaries lighter and tinged with ochraceous; chin and throat pure white; remainder of lower plumage light fulvous, the feathers of the breast and sides of the body each with a central narrow streak of brown, narrower on the breast, and widening laterally; centre of abdomen spotless; under tail-coverts fulvous, with large central marks of brown; tail-feathers tipped with whitish underneath.

Iris red; upper mandible dark brown, lower one yellow at base, changing to light brown at tip; mouth flesh-colour; eyelids greenish; legs light brownish yellow; claws flesh-colour.

Length 6·5 inches, tail 2·7, wing 2·6, tarsus 1, bill from gape ·82. The female is smaller.

This species differs from *P. ruficeps* of Southern India in being much smaller and in having the streaks on the lower plumage very narrow, whereas in *P. ruficeps* they occupy half the width of the feather. Specimens from Karennee in Capt. Wardlaw Ramsay's collection form a well-marked race. They differ from *P. subochraceum* in having the head pale chestnut, the sides of the body olive-brown, and the fulvous tinge on the lower plumage less developed.

The Burmese Striated Ground-Babbler is abundant over the whole of Pegu, except perhaps on the highest hills, where I do not remember to have observed it. Mr. Davison found it common throughout Tenasserim, but not ascending the higher hills. Capt. Bingham states that it is common in the Thoungyeen valley, and Capt. Wardlaw Ramsay procured it on the Karin hills east of Tonghoo. It probably occurs in Arrakan.

It is found in the Malay peninsula as far south as Tonka; and in the British Museum there is a specimen from the Salanga Islands. Dr. Tiraut records it from Cochin China.

This common Babbler is found in every description of jungle, in gardens, orchards and compounds. It keeps entirely to the ground, and is seldom seen; but its note, which is a remarkably pretty one, may be constantly heard. I have generally found them in pairs feeding among dead leaves and herbage. I have frequently found the nest in May and June; it is a domed structure made of dry bamboo-leaves, and lined with grass and fine roots. It is always placed on the ground, and half the nest is often imbedded in the dead leaves which have accumulated on the ground. The eggs are usually three in number and are white speckled with reddish brown and purple. Mr. Davison found the nest with well-incubated eggs in the south of Tenasserim as early as the 25th March. In Pegu I do not think that they nest at an earlier period than May.

69. PELLORNEUM INTERMEDIUM.

SHARPE'S STRIATED GROUND-BABBLER.

Pellorneum intermedium, Sharpe, *Cat. Birds B. Mus.* vii. p. .

Description.—*Male and female.* Plumage generally like that of *P. subochraceum*. It differs in having the feathers of the upper back dark brown or blackish and the adjacent feathers on either side the neck with the inner webs fulvous white; the eye-streak is rich buff, with no spots over the eye; the feathers of the forehead are dark-shafted only in the vicinity of the nostrils, and the stripes on the sides of the breast are broader and not so well defined.

The size is the same as that of *P. subochraceum*.

This species is close to *P. nipalensis*, Hodgs., but is considerably smaller. In *P. nipalensis* the black-shafted feathers of the forehead reach back nearly to the eye; the eye-streak is whitish, and not buff, and it is, moreover, much speckled with brown; the streaks on the breast are black, very distinctly defined, and extending to the middle of the breast, where they are as frequent as elsewhere, whereas in *P. intermedium* the streaks are brown and almost entirely absent from the centre of the breast.

P. pectoralis, Godwin-Austen, appears to me to be inseparable from *P. nipalensis*. I have examined a number of specimens, including the type, and have failed to find any points by which it can be distinguished from *P. nipalensis*.

P. palustre, Gould (nec Jerd.), is a very well-marked species, having the top of the head concolorous with the back and the lower plumage strikingly different to that of any other known species.

This species was procured at Thayetmyo by Capt. Wardlaw Ramsay, and there is another specimen in the British Museum from Cachar. It probably inhabits the whole intervening country.

Genus *ALCIPPE*, *Blyth*.

70. *ALCIPPE NIPALENSIS*.

THE NIPAL QUAKER-THRUSH.

Siva nipalensis, Hodgs. *Ind. Rev.* 1838, p. 89. ***Alcippe nipalensis***, Jerd. *B. Ind.* ii. p. 18; *Hume, Nests and Eggs*, p. 240; *Bl. B. Burm.* p. 115; *David et Oust. Ois. Chine*, p. 218; *Hume & Dav. S. F.* vi. p. 260; *Hume, S. F.* viii. p. 95; *Scully, S. F.* viii. p. 287; *Hume, S. F.* x. p. 206.

Description.—*Male and female.* The top of the head, the nape and upper back ashy brown; ear-coverts and sides of neck rather paler; lores and round the eye whitish ashy; the chin and cheeks darker than the lores; back, scapulars, wing-coverts, rump, tail-coverts and tail fulvous brown; wings brown, edged with fulvous on the outer webs; lower plumage pale buff or earthy brown, whitening on the abdomen; two dark brown stripes extend from the ear-coverts, one on either side the back.

Bill grey or livid horny, the base of the upper mandible and a line along the culmen black; irides hazel-brown; feet livid fleshy; claws grey horny. (*Scully*.)

Length 5 inches, tail 2·4, wing 2·35, tarsus ·8, bill from gape ·55. The female is about the same size.

The Nipal Quaker-Thrush appears to be somewhat local and rare in

Burmah. Mr. Hume states that he has seen a specimen which was procured in the northern part of the Pegu hills. Mr. Davison procured it in Tenasserim in the pine-forests of the Salween and on Mooleyit mountain, and also at the foot of Mount Nwalabo. Mr. Blyth records it from Arrakan. I have never myself met with it.

Out of Burmah it occurs in Nipal and Sikhim, and also in the Khasia and Dafla hills. It extends into China, and is probably spread over the Indo-Burmese countries.

Mr. Davison states that this species goes about the brushwood in flocks, hunting about amongst the leaves and on the ground for insects. They are very lively birds, moving about quickly and keeping up a continual twittering.

In the Himalayas they appear to breed from March to May. The nest is described as being cup-shaped and made of bamboo-leaves bound together by fine roots, which material also forms the lining of the nest. It is placed in a small bush at a short distance from the ground. The eggs are white, speckled with purplish red.

71. *ALCIPPE PHAYRII*.

THE BURMESE QUAKER-THRUSH.

Alcippe phayrei, *Bl. J. A. S. B.* xiv. p. 601; *Hume, S. F.* iii. p. 116, v. p. 60; *Hume & Dav. S. F.* vi. p. 260; *Anders. Yunnan Exped.* p. 635, pl. xlviii.; *Hume, S. F.* viii. p. 95. *Alcippe magnirostris*, *Wald. in Bl. B. Burm.* p. 115; *Hume, S. F.* v. p. 56; *Tweedd. Ibis*, 1877, p. 487. *Alcippe fusca*, *Godwin-Austen, J. A. S. B.* xlv. p. 197; *Hume, S. F.* v. p. 54.

Description.—*Male and female.* Very similar to *A. nipalensis*, but the ashy brown of the head does not extend to the upper back; the ear-coverts are fulvous brown, and not ashy; the stripes from the ear-coverts down the sides of the neck and back are either absent or present in an obsolete form only. The tail and back are more brown and less fulvous, and the sides of the neck are fulvous and not ashy.

Iris whitish brown to greyish blue; eyelids plumbeous; mouth yellow; legs and claws dusky flesh-colour; upper mandible dusky brown, the lower one somewhat paler and turning to yellow at the base.

Length 6·2 inches, tail 2·8, wing 2·7, tarsus ·85, bill from gape ·75. The female is of the same size.

This and the preceding species are very similar, but in addition to the small differences in coloration they may be readily distinguished by their size. I have examined the type of *A. fusca*, Godw.-Aust., and identify it without hesitation with *A. phayrii*. *A. cinerea*, Eyton, the type of the

genus, occurs in the Malay peninsula ; its lower plumage is ashy, and the upper tail-coverts and rump are tinged with ochraceous.

The Burmese Quaker-Thrush is found abundantly in the evergreen forests on the eastern spurs of the Pegu hills. I have not observed it elsewhere in Pegu. Mr. Davison found it spread over the whole of Tenasserim in suitable localities in the low hills and at their bases. Capt. Bingham states that it is common in the Thoungyeen valley and also in that of the Yonzaleen. It was procured in Karennee at an elevation of 3000 feet by Capt. Wardlaw Ramsay. It also occurs in Arrakan.

Dr. Anderson observed it to the east of Bhamo, and Col. Godwin-Austen got it in the Naga hills.

The birds which I had the opportunity of noticing on the Pegu hills were generally found deep down in the valleys, creeping amongst the brushwood on the sides of nullahs. I did not hear them utter any note. Nothing is known about their nidification.

Genus POMATORHINUS, *Horsf.*

72. POMATORHINUS OLIVACEUS.

THE TENASSERIM SCIMITAR BABBLER.

Pomatorhinus olivaceus, *Bl. J. A. S. B.* xvi. p. 451; *Hume, S. F.* v. p. 137; *Dav. S. F.* v. p. 458; *Hume & Dav. S. F.* vi. p. 283; *Wardlaw Ramsay, Ibis*, 1878, p. 133; *Hume, S. F.* viii. p. 96, ix. p. 117; *Bingham, S. F.* ix. p. 180.

Description.—*Male and female.* The head from the bill to the nape slate-colour; lores and ear-coverts black; a supercilium reaching from the nostrils to the nape white; a patch on either side of the neck, behind the ear-coverts, chestnut; the upper plumage, tail and wings olive-green; the inner webs of the feathers of the wing plain brown, and the tail faintly cross-barred with a darker tint; chin, throat, cheeks, breast and abdomen pure white; sides of the breast and of the body light earthy brown; thighs, under tail-coverts and flanks dark olive-green.

Mr. Limborg states that the bill is yellow and the legs grey.

Length 9 inches, tail 4·5, wing 3·6, tarsus 1·3, bill from gape 1·3.

The Tenasserim Scimitar Babbler was first described by Mr. Blyth from a specimen procured at Ye. Mr. Davison met with it in Tenasserim from Thoungya Sakan down to Malewoon, in the less elevated ranges of mountains and the neighbourhood of their bases. Capt. Bingham states that it is found throughout the Thoungyeen valley.

It has also been obtained at Kussoom in the Malay peninsula.

Capt. Bingham found the nest on the 4th March in the Meplay-Forest

reserve. It was cup-shaped, and loosely made of bamboo-leaves and lined with strips of the same. It contained three white eggs. The nest was placed under the ledge of a sheltering bank, and appears to have been well concealed. Mr. Davison also found the nest in Tenasserim, but in January. It was a globular structure, and contained three eggs.

The habits of all the Scimitar Babblers are much alike. They live on the ground or in shrubs very close to the ground, only very occasionally mounting trees. They conceal themselves so well that they are seldom seen; but when seen they generally perform fantastic motions, spreading out the tail and drooping the wings. They have different calls, which resolve themselves, however, into variations of the words "hoot-hoot-hoot" constantly repeated. They frequent the very thickest pieces of jungle, not only where the bushes themselves are thick, but where the low undergrowth is entangled and intricate.

They all nest on the ground or on sloping banks, and they make a nest which is in most cases domed; occasionally only cup-shaped, as recorded above. The eggs are invariably white.

73. POMATORHINUS NUCHALIS.

THE RUFOUS-NECKED SCIMITAR BABBLER.

Pomatorhinus schisticeps, *apud Hume, S. F. iii. p. 121 (nec Hodgs.)*. **Pomatorhinus nuchalis**, *Tweedd. Ann. Nat. Hist. ser. 4, xx. p. 535; Hume & Dav. S. F. vi. p. 284; Wardlaw Ramsay, Ibis, 1878, p. 134; Hume, S. F. ix. p. 251; Oates, S. F. x. p. 207*. **Pomatorhinus leucogaster** (*nec Gould*), *Bl. & Wald. B. Burm. p. 113; Wardlaw Ramsay, Ibis, 1877, p. 465; Hume & Dav. S. F. vi. p. 282*.

Description.—*Male and female.* Like *P. olivaceus*, but the chestnut on the neck is continued down the sides of the breast and body, replacing the earthy brown of those parts in *P. olivaceus*. The rufous is also continued round the neck, forming a collar more or less distinct.

Bill orange-yellow; the base of the lower mandible and the gape dusky; inside of mouth flesh-colour; iris pale yellow; eyelid and ocular region pale lavender; legs dusky plumbeous; claws horny brown.

Length 11·3 inches, tail 3·9, wing 3·8, tarsus 1·3, bill from gape 1·3.

The Rufous-necked Scimitar Babbler occurs in the immediate vicinity of Thayetmyo, where I found it rather common. Capt. Wardlaw Ramsay got it at Tonghoo, on the Karin hills, and in Karennee at 3000 feet elevation. Mr. Davison observed it in Tenasserim from the pine-forests of the Salween down to Thatone.

It is not yet known to occur anywhere else in the province.

74. POMATORHINUS SCHISTICEPS.

THE SLATY-HEADED SCIMITAR BABBLER.

Pomatorhinus schisticeps, *Hodgs. As. Res.* xix. p. 181; *Jerd. B. Ind.* ii. p. 29; *Hume, Nests and Eggs*, p. 250; *Bl. B. Burm.* p. 113; *Wardlaw Ramsay, Ibis*, 1878, p. 132, pl. iii.; *Hume, S. F.* viii. p. 96; *Scully, S. F.* viii. p. 288; *Gammie, S. F.* viii. p. 455; *Hume, S. F.* ix. p. 251, x. p. 208 n. **Pomatorhinus leucogaster**, *Gould, P. Z. S.* 1837, p. 137; *Jerd. B. Ind.* ii. p. 30; *Hume, S. F.* viii. p. 96.

Description.—*Male and female.* Like *P. nuchalis*, but the rufous on the sides of the neck and body is streaked with white, and the rufous collar on the hind neck is wanting.

Bill horny yellow; the base of the upper mandible dusky; irides reddish cream-colour; feet plumbeous, the soles yellowish; claws livid horny. (*Scully.*)

Length 10 inches, tail 4·5, wing 4, tarsus 1·3, bill from gape 1·25.

I insert this bird in my list on the authority of Mr. Hume, who assures us that he has a specimen from Thayetmyo which is identical with Himalayan examples, with the sides of the breast and body streaked with white. There is nothing remarkable in the fact of such a Himalayan bird occurring in Thayetmyo any more than there is in the Eastern and Southern form, *P. nuchalis*, extending to the same place.

I have looked in vain among the late Mr. Gould's birds, now in the British Museum, for the type of *P. leucogaster*. His labels do not, however, always bear his name; but all the specimens of this type of *Pomatorhinus* (and some of them are undoubtedly from the Gould collection) have the white streaks developed, and probably his type is amongst them. Capt. Wardlaw Ramsay, who has most carefully worked up this genus, unites *P. leucogaster* and *P. schisticeps*, and I follow him. Mr. Hume is also inclined to unite the two, but in doing so would also add to them *P. nuchalis*, a species which I am well satisfied is quite distinct.

The Slaty-headed Scimitar Babbler, according to Mr. Hume, occurs at Thayetmyo. It has been recorded from Arrakan by Dr. Jerdon and Mr. Blyth.

It inhabits the Himalayas from the N.W. to Assam, and has also been found in the hill-ranges of Eastern Bengal.

Mr. Blyth gives this species from Tenasserim, but the birds he received were probably *P. nuchalis*.

75. POMATORHINUS OCHRACEICEPS.

LLOYD'S SCIMITAR BABBLER.

Pomatorhinus ochraceiceps, *Wald. Ann. Nat. Hist.* ser. 4, xii. p. 487; *Wald. in Bl. B. Burm.* p. 113; *Hume, S. F.* iii. p. 282; *Wardlaw Ramsay, Ibis*, 1877, p. 465, pl. xiii., 1878, p. 136; *Hume & Dav. S. F.* vi. p. 281; *Hume, S. F.* viii. p. 96.

Description.—*Male and female.* Whole upper plumage bright ochraceous, the inner webs of the wing-feathers being pale brown; tail paler ochraceous, the terminal halves of the feathers suffused with brown and obsoletely cross-barred with blackish; feathers immediately close to the base of the upper mandible and the lores black; a narrow supercilium extending to the nape white; ear-coverts rich hair-brown; chin, throat, breast and centre of abdomen pure white; sides of the abdomen, vent, flanks and under tail-coverts ochraceous.

Legs, feet and claws pale dingy green or greenish brown; bill bright vermilion-red; shelf of nostrils black; the irides varied much, being pale greyish brown, very pale yellowish red, light Indian red, and pinkish yellow. (*Davison.*)

Length 9·5 inches, tail 4·3, wing 3·6, tarsus 1·3, bill from gape 1·4.

Lloyd's Scimitar Babbler was sent to Lord Walden from the Karin hills by the late Colonel Lloyd, Deputy Commissioner of Tonghoo. Capt. Wardlaw Ramsay procured it in Karennee, at an elevation of 2500 feet.

Lieut. Lloyd, R.E., got one specimen when demarcating the frontier in Karennee; and Mr. Davison observed it on the higher slopes of Mooleyit mountain, in Tenasserim, at elevations exceeding 3000 feet. It has not yet been observed elsewhere.

76. POMATORHINUS PHAYRII.

PHAYRE'S SCIMITAR BABBLER.

Pomatorhinus phayrii, *Bl. J. A. S. B.* xvi. p. 452; *Jerd. Ibis*, 1872, p. 301; *Bl. B. Burm.* p. 113; *Wardlaw Ramsay, Ibis*, 1878, p. 135, pl. v. f. 2; *Hume & Dav. S. F.* vi. p. 279; *Hume, S. F.* viii. p. 96.

Description.—*Male and female.* The whole upper plumage, wings and tail pale ferruginous; the feathers immediately at the base of the upper mandible and a broad streak extending from the lores under the eye, covering the ear-coverts and passing beyond them, black; a long supercilium, reaching to the same distance as the black stripe, white slightly

bordered by black above; cheeks, chin and upper throat white; remainder of lower surface chestnut, turning to olive-brown on the flanks, vent and under tail-coverts.

Irides pale yellow. (*Godw.-Aust.*)

Length 9 inches, tail 4·1, wing 3·7, tarsus 1·3, bill from gape 1·3.

Phayre's Scimitar Babbler was described by Mr. Blyth from specimens received from Arrakan. He states that this bird also occurs in Tenasserim, at Tavoy; but he probably mistook *P. albigularis* for it.

It occurs in Manipore and in the hill-tracts of Eastern Bengal. It is also said to occur in Nipal or Sikhim; but this assertion requires confirmation.

77. POMATORHINUS ALBIGULARIS.

BLYTH'S SCIMITAR BABBLER.

Pomatorhinus albogularis, *Bl. J. A. S. B.* xxiv. p. 274; *Bl. B. Burm.* p. 113; *Wardlaw Ramsay, Ibis*, 1878, p. 135, pl. v. f. 1; *Hume & Dav. S. F.* vi. pp. 281, 514; *Hume, S. F.* viii. p. 96. **Pomatorhinus mariæ**, *Wald. Ann. Nat. Hist.* ser. 4, xv. p. 403; *Hume, S. F.* iii. p. 404, v. p. 136.

Description.—*Male and female.* Very similar to *P. phayrii*; the upper plumage rich rufescent, the lower pale buffy where in *P. phayrii* it is ferruginous; the throat is white for a greater distance from the bill, and the supercilium is broader.

Legs and feet pale greenish brown, sometimes a dingy brownish green; bill vermilion-red; irides creamy white. (*Davison.*)

Length 9·6–10 inches; tail 4·2; wing 3·8–3·9; tarsus 1·35–1·4; bill from gape 1·12. (*Davison.*)

Blyth's Scimitar Babbler was first observed on Mooleyit mountain, in Tenasserim, at 5000 to 6000 feet elevation. It was found again in the same locality by Mr. Davison, and subsequently at the foot of Nwalabo, near Tavoy. Dr. Mason asserts that it is common round about Tavoy; and as there is no other very closely allied species there, he is doubtless correct. Capt. Wardlaw Ramsay procured it in the Tonghoo hills. It appears to be a comparatively rare species.

Allied species to the preceding three are *P. ferruginosus* from the Himalayas, with the crown and nape black, and *P. stenorhynchus* from the Eastern Bengal hills.

78. POMATORHINUS ERYTHROGENYS.

THE RUSTY-CHEEKED SCIMITAR BABBLER.

Pomatorhinus erythrogenys, *Vigors*, *P. Z. S.* 1831, p. 173; *Jerd. B. Ind.* ii. p. 31; *Hume*, *Nests and Eggs*, p. 251; *Wald. in Bl. B. Burm.* p. 113; *Wardlaw Ramsay*, *Ibis*, 1878, p. 142; *Anders. Yunnan Exped.* p. 634; *Hume*, *S. F.* viii. p. 96; *Scully*, *S. F.* viii. p. 288; *Gammie*, *S. F.* viii. p. 453.

Description.—*Male and female.* Whole upper plumage, with wings and tail, olive-brown; the forehead, cheeks, ear-coverts, sides of the neck and breast (almost meeting across the breast), sides of the body, flanks, vent, thighs and under tail-coverts chestnut; chin and throat whitish, sometimes ashy and sometimes smoky brown; centre of the breast and abdomen pure white.

Bill dingy grey horny; the base of the maxilla blackish, and the base of the mandible greenish; irides yellowish white or hoary; feet brownish fleshy; claws brown horny. (*Scully*.)

Length 10 inches, tail 4.1, wing 3.6, tarsus 1.4, bill from gape 1.45.

The Rusty-cheeked Scimitar Babbler has been procured by Mr. Davison in Tenasserim in the pine-forests of the Salween, and also at Thatone, about 50 miles north-west of Moulmein. It does not appear to have been procured in any other part of Burmah.

It is a common bird in the Himalayas, from Simla down to Bhootan. Col. Godwin-Austen procured it in the hill-ranges of Eastern Bengal, and Dr. Anderson near Bhamo.

The nest is placed on the ground in a clump of coarse grass, amongst dead leaves. It is domed and constructed of dry grass, dead leaves and moss-roots. The eggs are three in number and white in colour. It probably breeds in Burmah from April to June.

79. POMATORHINUS HYPOLEUCUS.

THE ARRAKAN SCIMITAR BABBLER.

Orthorhinus hypoleucos, *Bl. J. A. S. B.* xiii. p. 371; *Hume*, *S. F.* v. p. 31, viii. p. 96, ix. p. 253. **Pomatorhinus hypoleucos**, *Bl. J. A. S. B.* xiv. p. 597; *Bl. B. Burm.* p. 113; *Godw.-Aust. P. A. S. Beng.* 1877, p. 147; *Wardlaw Ramsay*, *Ibis*, 1878, p. 140.

Description.—*Male and female.* Whole upper plumage reddish brown, duller on the head; lores grey; ear-coverts plain brown; a streak beginning over the eye, passing over the ear-coverts and expanding into a patch at

the side of the neck ferruginous; chin, throat, breast and centre of abdomen white; sides of the breast ashy, each feather with a large triangular patch of white; sides of the abdomen rufous ashy; under tail-coverts ferruginous.

Length about 12 inches, tail 4·3, wing 4·3, tarsus 1·7, bill from gape 1·9.

The above description is taken from a specimen in the British Museum, without locality; but it apparently represents the true *P. hypoleucus* from Arrakan, characterized by a fairly developed ferruginous supercilium and neck-patch and by the absence of white streaks on the supercilium or neck.

P. inglisi, of which I have examined three specimens from Cachar, is a fairly separable species or race, very closely allied to *P. hypoleucus*, from which, however, it may be distinguished by the almost total absence of any ferruginous over the eye and on the sides of the neck.

The Arrakan Scimitar Babbler was discovered in Arrakan, and has not been found there again since. Mr. Blyth described it as long ago as 1844, and it is consequently a rare and little-known bird. Judging from Colonel Godwin-Austen's remarks (*l. c.*), the form which is found in the Naga hills appears to be identical with the Arrakan bird, whereas the form found in the Garo hills is *P. inglisi*.

80. POMATORHINUS TICKELLI.

TICKELL'S SCIMITAR BABBLER.

Pomatorhinus hypoleucus, *Bl. J. A. S. B.* xxiv. p. 273. **Pomatorhinus tickelli** (*Bl.*), *Tickell, Ibis*, 1863, p. 113; *Wardlaw Ramsay, Ibis*, 1878, p. 142. **Orthorhinus tickelli**, *Hume, S. F.* v. p. 32; *Hume & Dav. S. F.* vi. p. 285; *Hume, S. F.* viii. p. 96; *Bingham, S. F.* ix. p. 181; *Hume, S. F.* ix. p. 253.

Description.—*Male and female.* Entire upper plumage olive-brown, strongly tinged with ferruginous on the outer webs of the quills and the outer edges of the tail-feathers; inner webs of the quills dark brown; lores, cheeks and ear-coverts rufous-grey; a patch behind and below the ear-coverts deep ferruginous; a ferruginous supercilium from just over the eye, passing over the ear-coverts and merging into the patch on the neck; each feather with a broad whitish streak; beyond the neck-patch the feathers of the side of the neck also broadly centred with white, and with a few white streaks over the sides of the upper back; chin, throat, breast and abdomen white; the feathers on the sides of the breast and abdomen margined with black; sides of the body, vent and thighs rufous ashy; under tail-coverts ferruginous.

Bill horny, darker at the base of the upper mandible; iris dark red-brown; legs and feet fleshy white. (*Bingham, MS.*)

Length 12 inches, tail 4·5, wing 4·4, tarsus 1·7, bill from gape 1·98.

The above description and measurements are from a male specimen shot by Capt. Bingham in the Haundraw valley, Tenasserim.

This species may be known at a glance by the white streaks on the supercilium and sides of the neck. Otherwise it is very close to *P. hypoleucus*.

Mr. Davison remarks :—"This Babbler I always found in thick forest, usually in pairs, but occasionally in small parties. It keeps much more to the ground than any *Pomatorhinus*, hopping about in a very ungainly manner. When feeding and undisturbed I have heard them utter a short chuckling note. This is especially the case when several are together and have got somewhat separated; one perhaps finding himself alone, and not being able to see his comrades, utters this chuckling note, when he is immediately answered by another, and then another and another, until each has answered, and then all are silent again. When disturbed they utter a note of the typical character, *hoot, hoot, hoot*, but much louder and fuller than that of any of the true *Pomatorhini* that I know. Their food seems to be exclusively insects of all kinds, ants and huge woodlice."

Family SYLVIIDÆ.

Subfamily PHYLLOSCOPINÆ.

Genus PHYLLOSCOPUS, *Boie*.

81. PHYLLOSCOPUS BOREALIS.

THE ARCTIC WILLOW-WARBLER.

Phyllopneuste borealis, *Blas. Naum.* 1858, p. 313; *David et Oust. Ois. Chine*, p. 271. **Phylloscopus sylvicultrix**, *Swinh. Ibis*, 1860, p. 53. **Phyllopneuste javanica** (*Bp.*), *Salvad. Ucc. Born.* p. 244. **Phylloscopus borealis**, *Seeböhm, Ibis*, 1877, p. 69; *Dresser, Birds Eur.* ii. p. 509, pl.; *Hume & Dav. S. F.* vi. p. 352; *Hume, S. F.* viii. p. 102; *Seeböhm, Ibis*, 1879, p. 9; *id. Cat. Birds B. Mus.* v. p. 40; *Oates, S. F.* x. p. 222.

Description.—*Male and female.* Upper plumage olive-green, lighter on the rump; wings brown, the outer webs edged with olive-green; wing-coverts brown on the inner and olive-green on the outer webs; the median and greater coverts with yellowish-white tips, forming two bars; tail brown, the outer webs edged with olive-green; a broad and well-defined eye-streak, reaching to the nape, yellowish white; lores brown; ear-coverts olive, mingled with yellowish; under plumage white, suffused with yellow; under wing-coverts and axillaries pale yellow.

As the summer goes on the wing-bars get worn away and the upper one is sometimes absent. The lower plumage gets whiter and the upper plumage duller. After the autumn moult the wing-bars are very conspicuous and the underparts become suffused with deeper yellow.

Upper mandible dark brown, the edges and tip yellow; gape and basal half of the lower mandible orange-yellow, terminal half dusky; mouth bright orange-yellow; iris dark brown; legs flesh-colour, tinged with yellow; claws yellowish horn-colour.

Length 4·8 inches, tail 2, wing 2·7, tarsus ·8, bill from gape ·68: the second primary is intermediate in length between the fifth and sixth, and is sometimes equal to the sixth; the first primary is very small, measuring from ·3 to ·45 inch in length. The female is about the same size as the male.

P. xanthodryas from China is very likely to occur in Burmah. It is a larger bird than *P. borealis* and of a bright greenish yellow beneath. The second primary is intermediate to the fifth and sixth, but the first one is longer than in *P. borealis*, being never less than ·5, and frequently attaining a length of ·6 inch.

The Arctic Willow-Warbler is a winter visitor to Burmah. I found it a tolerably common bird every year in the vicinity of Pegu and Kyeik-padein, and I have observed it as early as the 12th of September. Mr. Davison found it in the southern half of Tenasserim at Shymotee, Banka-soon and Malewoon. It will probably also be found both in Arrakan and in Karennee.

Out of Burmah this Warbler has a most extensive range. In winter it is found in the Malay peninsula and archipelago as far as Timor and Flores, and Dr. Tiraud gives it from Cochin China. It has been procured in the Andaman Islands, but not as yet in India or in any of the Indo-Burmese countries. On migration in spring and autumn it passes through China and it summers in Northern Asia, penetrating into the adjacent parts of Europe and America, and it has occasionally straggled as far west as Heligoland.

In habits this species is arboreal—never, I believe, descending to the ground. It is found in mango or other trees infested with minute insects, searching the leaves and occasionally fluttering from branch to branch in pursuit of some small fly. Its note is monotonous and low. Mr. Seebohm found the nest in Siberia at Egaska in lat. 67° on the 6th of July. It was built on the ground in a wood thinly scattered with trees, and was placed in a recess on the side of a tussock or mound of grass. It was semidomed, the outside being composed of moss and the inside of fine dry grass. The eggs, five in number, were white profusely spotted all over with pale pink.

82. PHYLLOSCOPUS PLUMBEITARSUS.

MIDDENDORFF'S WILLOW-WARBLER.

Phylloscopus plumbeitarsus, *Swinh. Ibis*, 1861, p. 330; *Seeböhm, Ibis*, 1877, p. 76; *Hume & Dav. S. F.* vi. p. 355; *Brooks, S. F.* vii. p. 508; *Hume, S. F.* viii. p. 102; *Brooks, S. F.* viii. p. 385; *Bingham, S. F.* ix. p. 187; *Seeböhm, Cat. Birds B. Mus.* v. p. 45; *Oates, S. F.* x. p. 222. **Phyllopneuste plumbeitarsa**, *David et Oust. Ois. Chine*, p. 270.

Description.—*Male and female.* Upper plumage olive-green, lighter on the rump. Wings and tail brown, with the outer webs edged with olive-green. Wing-coverts brown, edged broadly with olive-green; the median coverts tipped with yellowish white, the greater coverts tipped with the same colour to a greater extent, forming two wing-bars. A well-defined narrow eye-stripe reaching to the nape yellowish white. Lores and feathers behind the eye brown; ear-coverts greenish yellow. Under plumage white, suffused with yellowish. Under wing-coverts and axillaries pale yellow.

In summer the plumage becomes paler. Just before the seasonal moults the upper wing-bar frequently disappears by abrasion, and the lower one becomes much less distinct.

Upper mandible brown, lower clear yellow; iris brown; mouth yellow; legs pale plumbeous brown, the toes tinged with yellow; claws pale horn-colour.

Length 4·2 inches, tail 1·7, wing 2·2, tarsus ·7, bill from gape ·6: the second primary is intermediate in length between the seventh and the eighth, but occasionally equals the eighth; the first primary is rather large, measuring from ·5 to ·7 inch in length.

Middendorff's Willow-Warbler is a very common winter visitor to Pegu. I have observed it as early as the 17th of September, and it remains to the end of April or perhaps later. I have got it only at Kyeikpadein; but I have no doubt it will be found all over Pegu. Mr. Davison appears to have procured it in December near Moulmein, and Capt. Bingham observed it in the Thoungyeen valley. Capt. Wardlaw Ramsay, according to Mr. Seeböhm, met with it at Kyouk-kyee, which I take to be the town of that name lying between Shwaygheen and Tonghoo. There is no other record of its occurrence in Burmah.

Dr. Tiraud gives it from Cochin China. It passes through China on migration, and appears to summer in Turkestan and Southern Siberia.

This Willow-Warbler is arboreal, frequenting thickly-foliaged trees and feeding on the insects which harbour under the leaves. It has a sibilant double call-note. Its nest has not yet been found.

83. PHYLLOSCOPUS VIRIDANUS.

THE INDIAN WILLOW-WARBLER.

Phylloscopus viridanus, *Bl. J. A. S. B.* xii. p. 967; *Jerd. B. Ind.* ii. p. 193; *Hume & Henders. Lah. to Yark.* p. 220, pl. xix.; *Scully, S. F.* iv. p. 148; *Seebohm, Ibis*, 1877, p. 73; *Hume & Dav. S. F.* vi. p. 356; *Anders. Yunnan Exped.* p. 624; *Brooks, S. F.* vii. p. 508; *Hume, S. F.* viii. p. 102; *Brooks, S. F.* viii. p. 385; *Legge, Birds Ceylon*, p. 555; *Seebohm, Cat. Birds B. Mus.* v. p. 44. *Phylloscopus seebohmi*, *Hume, S. F.* v. p. 335; *Hume & Dav. S. F.* vi. p. 356. *Phyllopneuste viridanus*, *Bl. B. Burm.* p. 105.

Description.—*Male and female.* Similar in all respects to *P. plumbeitarsus*, except that the pale tips to the median wing-coverts are wanting. It has thus one wing-bar only.

The Indian Willow-Warbler is stated by Mr. Blyth to have occurred in Arrakan. Mr. Davison met with it in Tenasserim at Thatone and Moulmein, and the type of *P. seebohmi* was obtained at Tavoy. I have never procured it in any part of the Pegu division.

It inhabits the Himalayas up to Cashmere, where it breeds, and in the winter is found over Northern India, Bengal and the Indo-Burmese countries, and, according to Dr. Tiraud, in Cochin China. Dr. Jerdon states that he procured it in Southern India, and Capt. Legge includes it in the birds of Ceylon.

It has straggled into Europe, where it has been obtained in Heligoland. Mr. Brooks found the nest in Cashmere at an elevation of 11,000 feet. It was a domed structure placed on the steep bank-side of a ravine full of birch trees, but it did not contain eggs.

84. PHYLLOSCOPUS BURMANNICUS.

THE BURMESE WILLOW-WARBLER.

Phylloscopus burmannicus, *Brooks, S. F.* ix. p. 272; *Oates, S. F.* x. p. 223.

Although I have doubts about the distinctness of this supposed species, I do not think myself justified, with the small amount of evidence before me, to suppress it altogether. Mr. Brooks described it from a specimen procured by myself in Pegu, and another skin is in Mr. Hume's museum. It is hardly possible in such a difficult group of birds as this to arrive at any certain conclusion from the examination of a single example. I therefore proceed to give Mr. Brooks's diagnosis of the species.

“From *P. viridanus* it may be distinguished as follows:—

“(1) The wing-bar being abruptly separated from the greenish colour

of the rest of the feather, while in *P. viridanus* the wing-bar is shaded off or blended into the adjoining greenish colour. This distinction is alone conclusive.

“(2) The bill is larger, and most conspicuously so when looked at from below, the lower mandible being longer and broader at the base. The bill is both whiter below and paler brown above.

“(3) The different shape of the end of the wing, the step between the second primary and the tip of the wing being much shorter than in *P. viridanus*. This remark also applies to *P. plumbeitarsus* and *P. lugubris*.

“From *P. plumbeitarsus* its larger size, longer wing, only one wing-bar, paler tone and longer distance between second primary and tip of wing separate it.

“From *P. lugubris* its very much paler tone, smaller first or bastard primary and longer distance between second primary and tip of wing separate it.”

I recorded the following particulars of the type when I shot it:—Length 4·7 inches, tail 1·8, wing 2·4, tarsus ·78, bill from gape ·58. Iris brown; lower mandible yellow, dusky at the extreme tip; upper one brown; legs and toes yellowish brown; claws pale brown.

I procured the above specimen at Kyeikpadein on the 15th of November, and Mr. Hume's bird was shot on the 12th of October at a spot 100 miles north of Moulmein. Both were males.

85. PHYLLOSCOPUS TENELLIPES.

THE PALE-LEGGED WILLOW-WARBLER.

Phylloscopus tenellipes, *Swinhoe*, *Ibis*, 1860, p. 53; *Seebohm*, *Ibis*, 1877, p. 75; *Brooks*, *S. F.* iv. p. 276; *Hume & Dav.* *S. F.* vi. pp. 354, 517; *Hume*, *S. F.* viii. p. 102; *Seebohm*, *Cat. Birds B. Mus.* v. p. 46; *Oates*, *S. F.* x. p. 222.
Phyllopneuste tenellipes, *David et Oust.* *Ois. Chine*, p. 269.

Description.—*Male and female.* Upper plumage olive-brown, suffused with buff, especially on the rump; eye-streak narrow but well defined, extending to the nape, buffish white; lores and feathers behind the eye blackish; ear-coverts mingled buff and brown; wings brown, edged with the colour of the back; wing-coverts brown, very broadly edged with the colour of the back, the median coverts paler at the tips, forming an indistinct wing-bar; greater coverts broadly tipped with buff, forming a distinct lower bar; lower plumage white, suffused with buff, especially on the vent and flanks.

Upper mandible brown, lower one pale fleshy, dusky at tip; legs and claws pale flesh-colour; iris brown.

Length 5·15 inches, tail 2, wing 2·67, tarsus ·73, bill from gape ·63 : the second primary is intermediate in length between the sixth and seventh, or sometimes equal to the seventh ; the first primary is about ·55 inch in length. The female is considerably smaller, the wing not being more than 2·4 inches in length.

The Pale-legged Willow-Warbler, which may be recognized by its peculiar buff coloration, is a winter visitor to Burmah, but a comparatively rare one. I procured it at Kyeikpadein on a few occasions in January, February and April. I have not met with it in any other part of Pegu. Mr. Davison obtained it at various points in Tenasserim, from Kyouknyat down to Malewoon, at which latter place my men also got several specimens. Further south it has been procured at Kussoom in the Malay peninsula.

Little is known of the distribution of this species. Dr. Tiraud records it from Cochin China. Mr. Swinhoe observed it at Amoy, and Père David at Pekin and Kiangsi ; and it is supposed to breed in Japan, but Messrs. Blakiston and Pryer have not met with it there.

The few birds I had the opportunity of examining were searching the leaves of mango-trees for insects. Their habits are not likely to differ from those of the other *Phylloscopi*.

86. PHYLLOSCOPUS MAGNIROSTRIS.

THE LARGE-BILLED WILLOW-WARBLER.

Phylloscopus magnirostris, *Bl. J. A. S. B.* xii. p. 966 ; *Jerd. B. Ind.* ii. p. 191 ; *Brooks, S. F.* iii. p. 243 ; *Seebohm, Ibis*, 1877, p. 77 ; *Hume & Dav. S. F.* vi. p. 352 ; *Cripps, S. F.* vii. p. 286 ; *Hume, S. F.* viii. p. 102 ; *Legge, Birds Ceylon*, p. 553 ; *Seebohm, Cat. Birds B. Mus.* v. p. 47. **Phyllopneuste magnirostris**, *Bl. B. Burm.* p. 105.

Description.—*Male and female.* Upper plumage olive-green, darker on the head ; wing-coverts and wings brown, edged with olive-green ; the median coverts with small, and the greater coverts with large, yellowish-white tips, forming two wing-bars ; tail brown, edged with olive-green on the outer webs, and tipped paler beneath ; eye-streak, well defined and reaching to the nape, yellowish white ; lores and feathers behind the eye brown ; ear-coverts yellowish white, suffused with brown ; lower plumage pale yellow, suffused with grey on the breast and flanks ; axillaries and under wing-coverts greyish yellow.

In summer the plumage becomes duller.

Irides earth-brown ; legs carneous ; claws and feet yellowish white ; bill horny. (*Cripps*.)

Length 5·4 inches, tail 2·2, wing 2·7, tarsus ·75, bill from gape ·65: the second primary is intermediate in length between the seventh and eighth; the first primary is very large, being about ·7 inch long. The female is considerably smaller than the male, the wing being about 2·5 inches in length.

The Large-billed Willow-Warbler is stated by Mr. Blyth to occur in Arrakan. I have never met with it in Pegu. Mr. Davison procured it in Tenasserim at Wimpong and Thatone, where it was rare. Further south Mr. Hume records it from Kurroo in the Malay peninsula.

It is spread over the whole peninsula of India, Ceylon, and the Andaman Islands, and it summers in the Himalayas along the whole range up to Cashmeer.

Mr. Brooks, who met with this bird in the Himalayas, says:—"The conditions this bird requires are wooded cliffs, or very steep rocky banks impracticable for man, and plenty of flowing water below. Above a roaring torrent it is in its element, and sings most vigorously. The discovery of this bird's nest and eggs will be a great difficulty. It is very shy and of a retiring disposition, and the female is rarely seen. But for its song, the male also would generally escape observation. The peculiarly shrill song I have referred to before (J. A. S. B. 1872, pt. ii. p. 79). It is the most melancholy one that could be imagined, but of singular sweetness."

87. PHYLLOSCOPUS LUGUBRIS.

BLYTH'S WILLOW-WARBLER.

Phyllopneuste lugubris, *Bl. Ann. Nat. Hist.* ser. 1, xii. p. 98; *Wald. in Bl. B. Burm.* p. 105. **Phylloscopus lugubris**, *Jerd. B. Ind.* ii. p. 192; *Armstrong, S. F.* iv. p. 329; *Seeböhm, Ibis*, 1877, p. 78; *Hume & Dav. S. F.* vi. p. 355; *Anders. Yunnan Exped.* p. 624; *Hume, S. F.* viii. p. 102; *Seeböhm, Cat. Birds B. Mus.* v. p. 48.

Description.—*Male and female.* Almost identical with *P. magnirostris* in coloration, but rather smaller, and differing also in the proportions of the primaries. It is also darker in colour.

Upper mandible dark brown, lower one yellowish, somewhat dusky on the terminal half; iris brown; mouth yellow; legs brown; claws horn-colour.

Length 5 inches, tail 2·1, wing 2·6, tarsus ·75, bill from gape ·62: the second primary is intermediate in length between the ninth and tenth, and sometimes equals the tenth; the first primary is very long, being sometimes ·8 inch in length. The female is considerably smaller, the wing not exceeding 2·4 inches in length.

Blyth's Willow-Warbler is one of the most abundant species of this

genus. Round Pegu and Kyeikpadein it is very common, and I have procured it from the 26th of September to the 6th of May. Dr. Armstrong got it at Elephant Point. It is probably spread over the whole of the Pegu Division. Mr. Davison appears to have found it rare in Tenasserim, and he states that it is confined to the northern half of the Division. It probably inhabits Arrakan.

Dr. Anderson procured it near Bhamo; and it is probably found in the winter over the whole of the Indo-Burmese countries. It extends in winter to Assam, Bengal and the eastern hill-tracts; and it seems to spend the summer in the Himalayas, where, however, it has not been found further west than Nipal. According to Mr. Seebohm it straggles in the winter as far as the Philippine Islands; and consequently it is likely to occur in Siam and Cochin China.

This Warbler appears to be entirely arboreal in its habits. Like others of the genus, it frequents large trees which are infested with insects, and it is very active in their pursuit.

88. PHYLLOSCOPUS CORONATUS.

TEMMINCK'S CROWNED WILLOW-WARBLER.

Ficedula coronata, Temm. et Schleg. *Fauna Jap.*, Aves, p. 48, pl. xviii. **Phyllo-**
pneuste coronata, David et Oust. *Ois. Chine*, p. 269; Brooks, *S. F.* iv. p. 275.
Phylloscopus coronatus, Seebohm, *Ibis*, 1877, p. 79; *id.* *Cat. Birds B. Mus.*
v. p. 49. **Reguloides coronata**, Hume & Dav. *S. F.* vi. p. 356; Hume, *S. F.*
viii. p. 102.

Description.—*Male and female.* Upper plumage olive-green, the head suffused with dusky; an irregular greyish-yellow streak from the forehead to the nape over the centre of the head; a well-defined yellowish-white supercilium reaching to the nape; lores and feathers behind the eye brown; ear-coverts mixed yellowish and dusky; wing-coverts and wings brown, edged with yellowish green, the median coverts with small, the greater coverts with larger, yellowish tips, forming two wing-bars; tail olive-brown, edged with yellowish green on the outer webs; lower plumage white, tinged with yellow on the breast and flanks; *lower tail-coverts pale yellow*. The summer plumage is duller, owing to the feathers being abraded.

Upper mandible brown; lower mandible yellowish; mouth yellow; legs and feet plumbeous.

Length 5·2 inches, tail 2·1, wing 2·4, tarsus ·7, bill from gape ·6: the second primary is intermediate in length between the sixth and seventh; the first primary is about ·5 inch long. The female is considerably smaller than the male.

Temminck's Crowned Willow-Warbler is tolerably common in the neighbourhood of Pegu and Kyeikpadein during the cold weather from September to April; but more are met with in the latter month than at any other period. I have not met with it in any other part of the Pegu Division. Mr. Davison procured it in the southernmost portion of Tenasserim, and my men also got it at Malewoon.

In winter this bird straggles south down the Malay peninsula as far as Java, and Dr. Tiraud records it from Cochin China. On migration it passes through China, and it spends the summer in Japan and Eastern Siberia.

The habits of this species do not appear to be much known. The birds I met with were in large mango-trees searching the leaves for insects.

89. PHYLLOSCOPUS REGULOIDES.

BLYTH'S CROWNED WILLOW-WARBLER.

Phyllopneuste reguloides, *Bl. J. A. S. B.* xi. p. 191. **Acanthiza trochiloides**, *Sundev. Ann. Nat. Hist.* ser. 1, xviii. p. 252. **Reguloides trochiloides**, *Jerd. B. Ind.* ii. p. 196; *Hume, S. F.* iii. p. 139; *Bl. & Wald. B. Burm.* p. 105; *Hume & Dav. S. F.* vi. p. 358; *Hume, S. F.* viii. p. 102; *Scully, S. F.* viii. p. 307; *Brooks, S. F.* x. p. 169. **Reguloides viridipennis** (*Bl.*), *Jerd. B. Ind.* ii. p. 198; *Bl. & Wald. B. Burm.* p. 106; *David et Oust. Ois. Chine*, p. 275. **Phylloscopus trochiloides**, *Seeböhm, Ibis*, 1877, p. 81; *Oates, S. F.* x. p. 223. **Phylloscopus viridipennis** (*Bl.*), *Seeböhm, Ibis*, 1877, p. 82; *Anders. Yunnan Exped.* p. 626. **Phylloscopus flavo-olivaceus**, *Hume, S. F.* v. p. 504; *Hume & Dav. S. F.* vi. p. 358. **Reguloides flavo-olivaceus**, *Hume, S. F.* viii. p. 102, ix. p. 291. **Phylloscopus reguloides**, *Seeböhm, Cat. Birds B. Mus.* v. p. 51.

Description.—*Male and female.* An indistinct coronal streak from the forehead to the nape pale yellowish; eye-streak well defined, extending to the nape, yellow; crown of head between the coronal and eye-streaks dark olive, turning to blackish at the nape; upper plumage olive-green; wings and wing-coverts brown, edged with bright olive-green; the median coverts broadly tipped with yellowish and the greater coverts with bright yellow, forming two very conspicuous wing-bars; lores and feathers behind the eye brown; ear-coverts mixed brown and yellowish; lower plumage greyish white tinged with yellow. In summer the plumage is duller, owing to the abrasion of the feathers.

Upper mandible dark brown, lower one with the gape and the edges of the upper mandible yellow; mouth orange-yellow; iris dark hazel-brown; legs yellowish brown; claws light brown.

Length 4·6 inches, tail 1·7, wing 2·4, tarsus ·7, bill from gape ·6: the

second primary is about equal to the tenth in length; the first primary measures about .6 inch in length. The female is considerably smaller than the male, the wing being occasionally as short as 2.1 inches.

Blyth's Crowned Willow-Warbler occurs commonly throughout Southern Pegu during the winter months. I have shot it as early as the 29th of August and it remains to the end of April. I procured one specimen in Northern Pegu on the hills. It is probably as common there as further south. Capt. Wardlaw Ramsay got it on the Karin hills from 2000 to 4000 feet elevation, and Colonel Lloyd sent it to Lord Tweeddale from Tonghoo. Mr. Davison appears to have met with it in Tenasserim on the Salween river, but on what portion he does not mention. Dr. Armstrong seems to have procured a specimen at Amherst.

In winter this Warbler is probably found in all the Indo-Burmese countries, for Dr. Anderson procured it in the Kachyin hills near Bhamo. It is known to be very abundant in Bengal and Northern India. In summer it appears to be found in the Himalayas from Cashmeer eastwards, and it is said to have occurred in China.

It is found on trees searching the leaves for insects, and I do not think it ever descends to the ground.

This species, *P. coronatus* and *P. occipitalis* from India are closely allied in coloration. *P. coronatus* may be known by the under tail-coverts being yellow in contrast to the white of the abdomen and by having the second primary longer than the seventh. *P. reguloides* and *P. occipitalis* have both the abdomen and under tail-coverts the same tint of yellowish white; but whereas the former has the second primary about equal to the tenth, in the latter the second primary is shorter than the seventh but longer than the eighth.

90. PHYLLOSCOPUS PRESBYTIS.

WALLACE'S CROWNED WILLOW-WARBLER.

? *Muscicapa presbytis*, S. Müller, *Tydschr. v. Nat. Gesch. en Phys.* ii. p. 331.

? *Phylloscopus viridipennis*, Bl. *J. A. S. B.* xxiv. p. 275; Hume, *S. F.* v. p. 330; Brooks & Hume, *S. F.* ix. pp. 290, 291; Seebohm, *Cat. Birds B. Mus.* v. p. 53. *Sylvia presbytis* (Müll.), Bl. *Ibis*, 1870, p. 169. *Phylloscopus presbytis* (Müll.), Seebohm, *Ibis*, 1877, p. 83. *Reguloides viridipennis* (Bl.), Hume, *S. F.* viii. p. 102.

Description.—*Male and female.* Very similar to *P. reguloides*, but differing in being smaller and in having the inner webs of the three outside tail-feathers white and the lower plumage more suffused with yellow.

Length about 4·3 inches, tail 1·7, wing 2·1, tarsus ·75, bill from gape ·55 : the second primary is about equal to the tenth ; the first primary is about ·55 inch long. The female is rather smaller than the male.

There has been a considerable amount of controversy about the bird which Mr. Blyth intended by the name *P. viridipennis*. The name of *Muscicapa presbytis* given by S. Müller is open to objection, for in publishing it he gave no description. It is therefore fortunate that Mr. Blyth re-described the species in 1870 under the name of *S. presbytis*, by which it ought in future to be known.

There can be little doubt that the bird originally described by Mr. Blyth from Tenasserim was *P. reguloides*, for although the length of the wing is given as 2 inches, Mr. Brooks, who examined one of the types, says that it actually measures 2·25 inches. Again, Mr. Blyth states (B. Burm.) that the Tenasserim bird is found plentifully at Darjeeling, and Dr. Jerdon, who had every opportunity of examining Mr. Blyth's types, also states that he obtained it there. In his description of the species he states nothing about any white on the tail, and it is well known, moreover, that *P. presbytis* has never yet been found in any part of India.

Wallace's Crowned Willow-Warbler was procured on Mooleyit mountain in Tenasserim by Mr. Davison, and he also found the nest on the 2nd of February. It was a globular structure made of moss mingled with dry leaves and fibres and lined with vegetable down. The nest was placed in a mass of creepers on the face of a rock and contained three pure-white eggs.

Elsewhere this species is only known with certainty to be found in the islands of Timor and Sumatra ; but it probably has a wide range over the Malay peninsula and archipelago.

91. PHYLLOSCOPUS SUPERCILIOSUS.

THE YELLOW-BROWED WILLOW-WARBLER.

Motacilla superciliosa, *Gm. Syst. Nat.* i. p. 975. **Reguloides proregulus** (*Pall.*), *Jerd. B. Ind.* ii. p. 197. **Reguloides superciliosus**, *Bl. B. Burm.* p. 106; *Armstrong, S. F.* iv. p. 329; *David et Oust. Ois. Chine*, p. 273; *Hume & Dav. S. F.* vi. p. 358; *Brooks, S. F.* vii. pp. 128, 236, 475; *Hume, S. F.* viii. p. 102; *Brooks, S. F.* viii. p. 393. **Phylloscopus superciliosus**, *Dresser, Birds Eur.* ii. p. 469, pl.; *Seebohm, Ibis*, 1877, p. 102; *Anders. Yunnan Exped.* p. 625; *Seebohm, Ibis*, 1879, p. 12; *id. Cat. Birds B. Mus.* v. p. 68.

Description.—*Male and female.* Upper plumage olive-green; a very indistinct and irregular coronal streak greenish yellow; a well-defined supercilium, reaching to the nape, pale yellow; the crown of the head

towards the nape darker than the other parts; wings and wing-coverts dark brown, edged with yellowish green, the median and greater coverts with conspicuous yellowish tips, forming two wing-bars; the quills tipped conspicuously with whitish; tail brown, edged with yellowish green on the outer webs; lores and ear-coverts mixed brown and yellow; lower plumage yellowish white; axillaries and lower wing-coverts yellow. Before the seasonal moults, the plumage becomes very dull.

Upper mandible brown; lower mandible yellowish white tipped with brown; legs brownish flesh-colour; iris brown; claws pale brown.

Length 4 inches, tail 1·8, wing 2·1, tarsus ·7, bill from gape ·5: the second primary is generally intermediate in length between the sixth and seventh; the first primary measures about ·5 inch in length. The female is considerably smaller than the male.

A closely allied species is *P. humii*, which is likely to occur in Burmah. In this the second primary is generally intermediate between the eighth and ninth, the eye-stripe is buff and the upper wing-bar is very indistinct and nearly absent in some specimens. Another species, *P. mandellii*, also likely to occur in Burmah, is closely allied. It is of very rich coloration; its head is blackish brown and the legs are pale yellow.

The Yellow-browed Willow-Warbler is one of the commonest birds of this genus in Burmah. It is found abundantly in every portion of Pegu. Mr. Blyth records it from Arrakan; and I have also received specimens from that Division collected by Mr. Shopland. Mr. Davison found it common in Tenasserim as far south as Mergui; and Capt. Bingham observed it in the Thoungyeen valley. Capt. Wardlaw Ramsay procured it in the Karin hills up to altitudes of 2500 feet. It is, of course, only a winter visitor to Burmah. I have obtained it from October to April.

This Warbler is found in winter throughout the Indo-Burmese countries, Assam, Bengal and Sikhim. It is also found in Southern China. It summers in Siberia. Occasionally it wanders into Europe.

This small bird is one of the first migrants to arrive in Burmah and almost the last to leave, notwithstanding the long journey it has before it to the wilds of Siberia. It is a cheerful and active bird, frequenting alike large trees and low hedges in pursuit of its insect food. Mr. Seebohm found its nest in Siberia. It was composed of dry grass and moss, and lined with reindeer-hair. The structure was semidomed, and was built in a slight tuft of grass, moss and bilberries, and it contained six eggs, white spotted with reddish.

It may be noted here that the account of the nidification given by Mr. Hume ('Nests and Eggs,' p. 364) under the title of *R. superciliosus* really relates to the allied *P. humii*.

92. PHYLLOSCOPUS PROREGULUS.

PALLAS'S WILLOW-WARBLER.

Motacilla proregulus, *Pall. Zoogr. Rosso-As.* i. p. 499. **Reguloides chloronotus** (*Hodgs.*), *Jerd. B. Ind.* ii. p. 197. **Reguloides proregulus**, *Hume, Nests and Eggs*, p. 368; *Bl. B. Burm.* p. 106; *David et Oust. Ois. Chine*, p. 274; *Hume & Dav. S. F.* vi. p. 358; *Hume, S. F.* viii. p. 102; *Scully, S. F.* viii. p. 309; *Brooks, S. F.* viii. p. 392. **Phylloscopus proregulus**, *Seeböhm, Ibis*, 1877, p. 104; *id. Cat. Birds B. Mus.* v. p. 71.

Description.—*Male and female.* A broad well-defined coronal streak and a supercilium extending to the nape pale yellow; the head dark olive-brown; upper plumage olive-brown, lighter than the head; rump bright yellow; wings and wing-coverts brown, the outer webs all margined with greenish yellow, the median and greater coverts broadly tipped with pale yellow, forming two wing-bars; tail olive-brown, edged with greenish yellow; sides of the head mingled brown and yellow; lower plumage white, suffused with grey and yellow; axillaries and under wing-coverts yellow. Before the seasonal moults, the plumage becomes much faded.

Upper mandible black; the lower mandible dusky, yellowish at the base; irides dark brown; gape orange; feet dingy greenish brown; claws dusky; soles yellowish green. (*Scully.*)

Length 3·5 inches, tail 1·4, wing 2, tarsus ·7, bill from gape ·42: the second primary is intermediate between the eighth and ninth; the first primary is nearly ·6 inch in length. The female is very little smaller than the male.

Pallas's Willow-Warbler was procured by Mr. Davison in the pine-forests of the Salween, near Pahpoon, in Tenasserim, where he appears to have got only one specimen. It has not been recorded from any other part of Burmah.

This bird winters in South China, the Indo-Burmese countries, Northern India and Bengal. It breeds in South-eastern Siberia and also in the Himalayas.

Captain Cock found the nest of this species in Cashmeer in May and June. The nest, which is domed or roofed and made of moss with a lining of feathers, is placed on a branch of a pine tree. The eggs, which appear to be usually five in number, are white marked with brownish red.

93. PHYLLOSCOPUS PULCHER.

THE ORANGE-BARRED WILLOW-WARBLER.

Abornis erochroa, *Hodgs. Gray's Zool. Misc.* p. 82. **Phylloscopus pulcher** (*Hodgs.*), *Bl. J. A. S. B.* xiv. p. 592. **Reguloides erochroa**, *Jerd. B. Ind.* ii. p. 199; *Wald. in Bl. B. Burm.* p. 106; *Hume & Dav. S. F.* vi. p. 358; *Hume, S. F.* viii. p. 102; *Brooks, S. F.* viii. pp. 392, 482; *Scully, S. F.* viii. p. 309. **Phylloscopus erochrous**, *Seebohm, Ibis*, 1877, p. 106. **Phylloscopus pulcher**, *Seebohm, Cat. Birds B. Mus.* v. p. 73.

Description.—*Male and female.* Head very dark olive-brown; coronal streak merely indicated, being extremely indistinct; upper plumage olive-green, the feathers of the rump very broadly tipped with yellowish green, forming a band above the coverts of the tail; wings and wing-coverts dark brown edged with green, the median and greater coverts broadly tipped with orange-yellow; tail with the three central pairs of feathers brown, edged on the outer webs with yellowish green, the three outer pairs white on the inner webs and white on the basal halves of the outer webs, the remainder of the outer webs being brown; supercilium buffish green; sides of the head mingled brown and green; lower plumage greenish yellow.

Bill black; base of lower mandible and gape yellow; irides dark brown; feet dusky greenish, the soles greenish yellow; claws dusky. (*Scully.*)

Length 4·2 inches, tail 1·75, wing 2·4, tarsus ·8, bill from gape ·5: the second primary is about equal to the tenth; the first primary measures about ·6 inch in length. The female is considerably smaller than the male, the wing measuring about 2·2 inches in length.

The Orange-barred Willow-Warbler is a rare winter visitor to Burmah. Mr. Davison procured one specimen on Mooleyit mountain in Tenasserim; and Capt. Wardlaw Ramsay obtained it at Karennee at 3000 feet elevation.

Little is known of the distribution of this species. It is known to occur in the Himalayas, from Bhootan to Simla; but it does not appear to have been observed in the plains of India.

Mr. Brooks states that the note of this species is a Thrush-like *zip*, not so loud as the Thrush's note, but wonderfully loud for so small a bird. Dr. Scully observes that in Nipal it was always found hunting about in the bushes at elevations from about 6000 to 7500 feet, but it was never abundant. Nothing is known of its breeding-habits.

P. maculipennis is not unlikely to occur in Burmah. It is somewhat like *P. pulcher*; but the chin and throat are grey and the wing-bars are yellow.

Genus HERBIVOCULA, *Swinhoe*.

94. HERBIVOCULA SCHWARZI.

RADDE'S BUSH-WARBLER.

Sylvia (Phyllopneuste) schwarzi, *Radde, Reis. Sibir., Vög.* p. 260, t. ix. f. *a, b, c*.
Herbivocula flemingi, *Swinhoe, P. Z. S.* 1871, p. 354; *Dav. et Oust. Ois. Chine*, p. 245. **Phylloscopus brooksi**, *Hume, S. F.* ii. p. 505, v. p. 134. **Phyllopneuste brooksi**, *Wald. in Bl. B. Burm.* p. 105. **Neornis flavolivacea**, *Hodgs. ? apud Hume, S. F.* iii. p. 139; *Oates, S. F.* x. p. 221. **Phylloscopus schwarzi**, *Brooks, S. F.* iv. p. 277; *Seebohm, Ibis*, 1877, p. 84; *Hume & Dav. S. F.* vi. p. 353; *Hume, S. F.* viii. p. 102; *Bingham, S. F.* ix. p. 186. **Herbivocula incerta**, *Dav. et Oust. Ois. Chine*, p. 246. **Oreopneuste affinis**, *Dav. et Oust. Ois. Chine*, p. 267. **Luscinola schwarzi**, *Seebohm, Cat. Birds B. Mus.* v. p. 128.

Description.—*Male and female in autumn and winter.* Upper plumage olive-brown tinged with tawny, especially on the rump; wings and tail brown, edged on the outer webs with the colour of the back; supercilium very distinct and reaching to the nape, buff; lores and feathers behind the eye dark brown; ear-coverts buff and brown; lower plumage rich tawny buff, paling on the throat and abdomen; axillaries and under wing-coverts buff. In summer the lower parts are nearly white, merely tinged with yellow or buff, more especially so on the vent and under tail-coverts.

Bill horn-colour, the base fleshy white and the gape yellow; iris brown; legs and feet fleshy yellow, claws fleshy brown.

Length 5·6 inches, tail 2·25, wing 2·45, tarsus ·9, bill from gape ·65: the second primary is equal to the eighth, or intermediate between the seventh and eighth; the first primary is very long, measuring ·85 inch in length. The female is rather smaller than the male.

Radde's Bush-Warbler has been met with frequently in Burmah in the winter. The bird which Mr. Hume (*l. c.*) identified doubtfully with *Neornis flavolivacea*, and which I shot in Northern Pegu near Tamagan, has been reexamined by Mr. Davison and myself, and we have both come to the conclusion that it is *H. schwarzi*. I procured another specimen at Kyeikpadein subsequently, and these are the only two instances I know of the occurrence of this species in Pegu. Mr. Davison obtained it in the northern half of the Tenasserim Division at Pahpoo and other places, and Capt. Bingham got it in the Thoungyeen valley.

This Warbler winters in South China, and passes the summer in Eastern Siberia. Mr. Swinhoe obtained it in Tientsin, and Père David at Pekin. The latter states that it is not rare in the hot season in Moupin and Setchuen.

This species is generally found in bushes and dense low jungle. Mr.

Davison states that it feeds almost entirely on the ground, and that it continually utters a soft low note that might be syllablized *chit, chit, chit*. On the first occasion on which I met with this species a small flock was seen, and the birds were flying from bush to bush in a restless manner. On the second occasion a bird was shot in high paddy, where it was moving about the stems.

95. HERBIVOCULA FUSCATA.

THE BROWN BUSH-WARBLER.

Phyllopneuste fuscata, *Bl. J. A. S. B.* xi. p. 113; *Bl. B. Burm.* p. 105; *Dav. et Oust. Ois. Chine*, p. 267. *Horornis fulviventris*, *Hodgs. P. Z. S.* 1845, p. 31. *Phylloscopus brunneus*, *Bl. J. A. S. B.* xiv. p. 591. *Phylloscopus fuscatus*, *Jerd. B. Ind.* ii. p. 191; *Seebohm, Ibis*, 1877, p. 85; *Armstrong, S. F.* iv. p. 329; *Anders. Yunnan Exped.* p. 623; *Hume & Dav. S. F.* vi. p. 352; *Cripps, S. F.* vii. p. 285; *Hume, S. F.* viii. p. 102. *Phyllopneuste brunneus*, *Bl. B. Burm.* p. 105. *Phyllopseuste fuscata*, *Hume, S. F.* iii. p. 139. *Luscinia fuscata*, *Seebohm, Cat. Birds B. Mus.* v. p. 127.

Description.—*Male and female.* Upper plumage brown; tail and wings brown, edged exteriorly with olive-brown; lores and feathers behind the eye dark brown; a distinct supercilium reaching to the nape buff; cheeks and ear-coverts mingled brown and buff; chin, throat and abdomen buffy white; breast, flanks, axillaries, vent and under tail-coverts rich buff. In summer the buff becomes less intense. Before the two annual moults the plumage gets much abraded, and some birds become a uniform dull brown.

Iris brown; upper mandible dusky brown, the lower one dusky yellow, brownish at the tip; mouth yellow; legs and feet dusky flesh-colour; claws yellowish horn-colour.

Length 5·3 inches, tail 2·3, wing 2·4, tarsus ·9, bill from gape ·52: the second primary is intermediate in length between the ninth and tenth; the first primary is large, being about ·8 inch in length. The female is smaller than the male, the wing measuring about 2·2 inches in length.

The Brown Bush-Warbler is a common winter visitor to every portion of Pegu. Mr. Blyth received it from Arrakan, and I have also obtained it from that Division. Mr. Davison got it in Tenasserim as far south as Tavoy, but it probably extends still further south.

It is found in India in winter throughout Bengal and the North-west Provinces as far at least as Etawah. It also winters in South China and in the Indo-Burmese countries, Dr. Anderson having procured it near Bhamo. In summer it passes to Eastern Siberia and Japan. Its nest has not yet been found by any trustworthy observer.

This Warbler confines itself to low jungle and grass-land, and is especially fond of wet localities and the banks of nullahs and ditches. Whenever I have met with it I have found it very common and easy to observe. It feeds a good deal on the ground. It has a low single note, which it frequently utters while flitting from spot to spot.

Subfamily ACROCEPHALINÆ.

Genus ACROCEPHALUS, *Naum.*

96. ACROCEPHALUS ORIENTALIS.

THE EASTERN GREAT REED-WARBLER.

Salicaria turdina orientalis, *Temm. et Schleg. Faun. Jap., Aves*, p. 50, pl. xx. B. **Acrocephalus magnirostris**, *Swinh. Ibis*, 1860, p. 51. **Acrocephalus orientalis**, *Wald. Tr. Z. S.* viii. p. 64, ix. p. 195; *Salvad. Ucc. Born.* p. 251; *Oates, S. F.* iii. p. 337; *Hume & Dav. S. F.* vi. p. 338; *Hume, S. F.* viii. p. 100; *Seebohm, Cat. Birds B. Mus.* v. p. 97; *Oates, S. F.* x. p. 213. **Calamodyta orientalis**, *Dav. et Oust. Ois. Chine*, p. 252.

Description.—*Male and female.* Upper plumage olive-brown tinged with fulvous, especially on the rump and upper tail-coverts; wings and tail brown, edged on the outer webs with fulvous-brown; lores darker; a pale indistinct supercilium buffish white; ear-coverts and sides of the neck like the back; chin and throat nearly white; remainder of lower plumage fulvous, paling on the abdomen. The throat and breast are generally much streaked with brown, and I have hardly ever seen a specimen in which this streaking was entirely absent; the streaking probably indicates immaturity. In summer the lower plumage becomes paler.

Iris yellowish brown; eyelids plumbeous; mouth orange-yellow; upper mandible dark brown, edges and the whole lower mandible dusky flesh-colour; legs plumbeous.

Length 7·7 inches, tail 3, wing 3·2, tarsus 1·15, bill from gape 1. The female is of much the same size as the male. The second primary is generally equal to the fourth; the first primary is very minute and pointed.

The Eastern Great Reed-Warbler occurs plentifully in the vast grassy plains of Southern Pegu during the winter months. I have observed it from the 3rd of October to the 10th of May. It is remarkably common in the plain extending from Kyeikpadein to Myitkyo and easterly to the Sittang river. It is also found in the plain extending from Kyeikpadein

to Rangoon, and in other suitable localities throughout Pegu east of the Pegu river. Mr. Davison procured it in Tenasserim at Tavoy and Male-woon, where he states it was rare.

In winter this Reed-Warbler has a very wide range, having been found in South China, the Malay peninsula, the Malay islands, and also in the Philippine Islands, Batchian, Morty, and Lombock. In summer it is found in North China, Japan, and Eastern Siberia.

This species, although always found in the vicinity of grassy tracts of land, by no means confines itself to this class of vegetation. It is frequently found in trees and bamboo-thickets, and repeatedly comes into bushes near villages and houses. The solitary trees which here and there rear their heads above the grass in the Pegu plain are generally tenanted by one or more of these birds, who probably find in them a large stock of insect food. At Paghein and at Wau, where the inspection-bungalows stand in a vast sea of high grass with hardly a tree in sight, these birds used frequently to come into the house and search the thatch for spiders. The note, which is uttered all through the dry weather, but more so in April and May than at other times, is particularly loud and harsh; and were it not for this note, hardly a bird would be detected by the naturalist.

97. ACROCEPHALUS STENTOREUS.

THE INDIAN GREAT REED-WARBLER.

Curruca stentorea, *Hemp. et Ehr. Symb. Phys., Aves.* *Agrobates brunnescens*, *Jerd. Madr. Journ.* x. p. 269. *Acrocephalus brunnescens*, *Jerd. B. Ind.* ii. p. 154; *Hume & Henders. Lah. to Yark.* p. 214, pl. 16; *Bl. & Wald. B. Burm.* p. 104. *Calamodyta stentoria*, *Hume, Nests and Eggs*, p. 326. *Calamodyta meridionalis*, *Legge, S. F.* iii. p. 369. *Acrocephalus stentoreus*, *Dresser, Birds Eur.* ii. p. 585; *Hume, S. F.* viii. p. 100; *Legge, Birds Ceylon*, p. 541; *Doig, S. F.* ix. p. 279; *Seebohm, Cat. Birds B. Mus.* v. p. 98; *Oates, S. F.* x. p. 213.

Description.—*Male and female.* Precisely similar to *A. orientalis*, and undistinguishable from it in coloration. The throat and breast do not, however, appear to be so constantly streaked as in the preceding species.

The dimensions are those of *P. orientalis*. The bill is said to be larger and the tail longer, but I have not found these points of any use in discriminating the two birds. The second primary equals the fifth, or is sometimes shorter, and the second falls short of the tip of the wing by .15.

This and the preceding species, *A. orientalis*, can only be discriminated with certainty when the wings are fully grown and perfect. The differences may appear very trivial, but they are constant, and are also associated with

a different geographical distribution. In Pegu the two birds meet; but one is rare, the other extremely common. *A. turdoides*, another species, has its own geographical range, being confined to Europe and Africa. It differs from the other two in the shape of the wing, the second primary in the case of this bird being as long as the third, or, in other words, reaching to the tip of the wing. This is constant.

The Indian Great Reed-Warbler is as yet known to occur only at Kyeikpadein in Pegu, where I found it not uncommon and associating with *A. orientalis*. It was only observed in the cold weather.

This large Warbler has a very extensive range. It is found over the whole peninsula of India and the island of Ceylon, and extends further westwards through Persia to Egypt and North-east Africa. It seems to be only partially migratory, some birds remaining for the summer in Scinde and in Egypt.

I did not find its habits to differ from those of *A. orientalis*, and I could never tell, till I had shot the bird, which of the two was before me. Mr. Doig found the nests in August in Scinde, cup-shaped structures made of frayed pieces of reed, grass and fine sedge loosely put together, and attached to reeds growing in the water. Four appear to be the usual number of eggs in each nest; they are pale green, marked with neutral tint and reddish brown.

98. ACROCEPHALUS AGRICOLA.

JERDON'S REED-WARBLER.

Sylvia (Acrocephalus) agricola, *Jerd. Madr. Journ.* xiii. pt. 2, p. 131. **Acrocephalus agricola**, *Jerd. B. Ind.* ii. p. 156; *Oates, S. F.* iii. p. 339; *Dresser, Birds Eur.* ii. p. 559, pl.; *Hume & Dav. S. F.* vi. p. 338; *Hume, S. F.* viii. p. 100; *Seeböhm, Cat. Birds B. Mus.* v. p. 105; *Oates, S. F.* x. p. 214. **Calamodyta agricola**, *Hume, Nests and Eggs*, p. 328.

Description.—*Male and female.* Whole upper plumage russet-brown, brightest on the rump and upper tail-coverts; tail of the same colour, and margined brighter on the outer webs; wings brown, margined with russet on the outer webs; lores dusky; an indistinct supercilium from the bill to above the eye, and not extending much beyond the latter; ear-coverts and sides of neck like the upper plumage; lower plumage pale buff, less bright on the abdomen, and becoming almost white on the chin and throat. This is the plumage after the autumn moult. In summer the buff of the lower parts becomes very pale, and the upper parts are less ruddy, being almost earthy brown.

Iris pale yellow; eyelids plumbeous; upper mandible dark brown, the

lower one fleshy yellow; mouth orange-yellow; legs and claws pinkish brown.

Length 5·3 inches, tail 2·4, wing 2·2, tarsus ·9, bill from gape ·7: first primary ·45; the second primary is intermediate between the eighth and ninth, and occasionally equals the eighth. The female is rather smaller than the male.

Jerdon's Reed-Warbler is very abundant in the grassy plains and paddy-fields of Pegu from Kyeikpadein up to Tonghoo, and probably in other parts of the Division. Mr. Davison met with it once in Tenasserim at Kedei-Keglay.

It is spread over the peninsula of India in the cold weather, extending westwards to Eastern Europe. It breeds in the Himalayas. It will probably be found in the Indo-Burmese countries and China.

This small Reed-Warbler is, so far as I know, only a winter visitor to Burmah. On its arrival it betakes itself to the growing paddy, and is with difficulty observed and dislodged from its shelter, as it keeps to the roots of the thickest paddy in wet fields. When the rice is cut it retreats to elephant-grass.

Mr. Brooks found the nest in Cashmeer—a cup, very loosely and carelessly put together, made of fine grass and wool. I am under the impression that some birds of this species or the next remain in Burmah to breed, as in August I once found a nest which could hardly belong to any bird but an *Acrocephalus*; and I have moreover frequently heard the note of a Reed-Warbler in the rains, but in such places, so inundated and so covered with tall grass, that it was impossible to get at the bird. This was in the plains adjoining the Pegu Canal.

99. ACROCEPHALUS DUMETORUM.

BLYTH'S REED-WARBLER.

Acrocephalus dumetorum, *Bl. J. A. S. B.* xviii. p. 815; *Jerd. B. Ind.* ii. p. 155; *Adam, S. F.* i. p. 381; *Bl. B. Burm.* p. 104; *Anders. S. F.* iii. p. 351; *Dresser, Birds Eur.* ii. p. 561; *Cripps, S. F.* vii. p. 283; *Anders. Yunnan Exped.* p. 622; *Legge, Birds Ceylon*, p. 545; *Hume, S. F.* viii. p. 100; *Seeböhm, Cat. Birds B. Mus.* v. p. 104; *Oates, S. F.* x. p. 214. *Calamodyta dumetorum*, *Hume, Nests and Eggs*, p. 327.

Description.—*Male and female.* Upper plumage olive-brown, tinged with fulvous, not with russet; wings and tail brown, edged on the outer webs with olive-brown; lores dusky; over the lores an indistinct pale streak reaching to the eye; ear-coverts and sides of neck like the back; lower plumage pale buff, paler on the chin, throat and abdomen. In summer the buff on the lower parts becomes extremely pale.

Bill dusky, fleshy at base beneath; legs red-brown; irides yellow-brown. (*Jerdon.*)

Length 5·8 inches, tail 2·3, wing 2·4, tarsus ·9, bill from gape ·7: first primary ·35; the second reaches to about the sixth, or is intermediate between the sixth and seventh.

The present species may be distinguished from the last by its much larger bill, differently shaped wing, and by the absence of a rufous tinge on the upper plumage. The female is rather smaller than the male.

Blyth's Reed-Warbler has occurred a few times in Pegu, where I have obtained it in the plains round Kyeikpadein in the cold weather. Mr. Blyth has received it from Arrakan.

It occurs in the Indo-Burmese countries, and ranges over the peninsula of India and the island of Ceylon. In summer it is found in the Himalayas and Central Asia as far as 62° north latitude.

The few birds I had the opportunity of observing in Burmah did not differ in habits from *A. agricola*. They were shot in paddy or in elephant-grass. In Ceylon and India this bird appears to be rather familiar, frequenting gardens and the neighbourhood of houses, as well as reed-beds. Mr. Andrew Anderson found the nest in the Himalayas on the 11th of May. It was placed in a rose-bush, and was constructed of coarse blades of grass and lined with finer grasses. It was a domed structure, and had an entrance at the side, and it contained four eggs, which were white speckled with rufous.

100. ACROCEPHALUS BISTRIGICEPS.

SCHRENCK'S REED-WARBLER.

Acrocephalus bistrigiceps, *Swinh. Ibis*, 1860, p. 51; *Wald. in Bl. B. Burm.* p. 104; *Hume & Dav. S. F.* vi. p. 338; *Hume, S. F.* viii. p. 100; *Seebohm, Cat. Birds B. Mus.* v. p. 94; *Oates, S. F.* x. p. 214. *Salicaria* (*Calamodyta*) *maackii*, *Schrenck, Vög. Amur-Lande*, p. 370, pl. xii. figs. 4-6. *Calamodyta maackii*, *David et Oust. Ois. Chine*, p. 254.

Description.—*Male and female.* Upper plumage russet-brown, brighter on the rump and upper tail-coverts; a distinct black streak on either side of the crown of the head; below this a broad supercilium, running from the base of the bill; lores dark brown; ear-coverts hair-brown; sides of neck like the back; lower plumage pale buff, lighter on the abdomen and nearly white on the chin and throat; wings and tail brown, edged with russet-brown on the outer webs. The lower plumage is more rufous after the autumn moult.

Iris brown; mouth pale yellow; upper mandible brown, lower one

flesh-coloured, slightly dusky at the tip; legs plumbeous flesh-colour; soles of feet yellow; claws horn-colour.

Length 5·1 inches, tail 2·1, wing 2·1, tarsus ·8, bill from gape ·7: the second primary is generally intermediate between the sixth and seventh, and sometimes equals the seventh; the first primary is large, measuring ·5 inch in length. The female is of much the same size as the male.

Schrenck's Reed-Warbler occurs commonly in the neighbourhood of Kyeikpadein in Pegu, where I have procured it from the 5th of November to the 15th of April. It is probably found in other parts of the Division; but it is a bird which evades notice, and no one but an eager naturalist would be likely to notice it. Mr. Davison procured one specimen at Tavoy in Tenasserim.

It occurs in China. Mr. Swinhoe met with it at Amoy and Pekin; and Père David says that it passes the hot season in China. It breeds in Eastern Siberia and Japan.

This prettily-marked Reed-Warbler, on its arrival, is to be found in inundated rice-fields where the paddy is tall and thick. After the harvest it moves into grass-jungle and low brushwood. Its habits are difficult to observe, as it is a great skulker and has the greatest objection to showing itself.

A. sorghophilus is a very similar bird, but with the upper parts streaked with brown. It is from China, and is not unlikely to be found in Burmah. There are many other allied forms from China, too numerous to be referred to in a brief work like the present.

Genus ARUNDINAX, *Blyth*.

101. ARUNDINAX AEDON.

PALLAS'S REED-WARBLER.

Muscicapa aedon, *Pall. Reis. Russ. Reichs*, iii. p. 695. *Phragamaticola olivacea* (*Bl.*), *Jerd. Madr. Journ.* xiii. pt. ii. p. 129. *Arundinax olivaceus*, *Jerd. B. Ind.* ii. p. 157. *Arundinax aedon*, *Hume, S. F.* ii. p. 234; *Armstrong, S. F.* iv. p. 328; *Hume & Dav. S. F.* vi. p. 339; *Hume, S. F.* viii. p. 100. *Arundinax aedon*, *Bl. B. Burm.* p. 104; *David et Oust. Ois. Chine*, p. 254; *Oates, S. F.* x. p. 215. *Luscinia aedon*, *Seeböhm, Cat. Birds B. Mus.* v. p. 121.

Description.—*Male and female.* Upper plumage fulvous olive-brown, brightest on the rump; wing-coverts, quills and tail brown, the first very

broadly and the two latter narrowly edged with the colour of the back ; lores brown ; feathers round the eye pale fulvous ; ear-coverts and sides of the head and neck like the back ; no eye-stripe ; lower plumage buffish white, lighter on the chin, throat and abdomen and suffused with russet-brown on the flanks, vent and under tail-coverts ; axillaries and under wing-coverts buff. In summer the lower parts are not so richly coloured.

The *young* have the russet-brown of the lower parts more pronounced than even the winter adult.

Upper mandible dark horn-colour, lower one flesh-colour ; the tips of both and the gape tinged with orange ; mouth bright salmon-colour ; iris umber-brown ; eyelids bright plumbeous ; legs and feet plumbeous ; claws horn-colour.

Length 7·7 inches, tail 3·5, wing 3·1, tarsus 1·1, bill from gape ·88 : the second primary is generally intermediate between the seventh and eighth, occasionally equal to or longer than the seventh ; the first primary is very long, measuring nearly an inch in length. The female does not appear to differ in size from the male.

Pallas's Reed-Warbler appears to be spread pretty well over the whole of Pegu. I found it abundant every winter from Kyeikpadein up to Myitkyo. Capt. Wardlaw Ramsay procured it at Tonghoo, and Dr. Armstrong at Elephant Point. Mr. Davison found it distributed throughout Tenasserim over the more open parts of the country, and Capt. Bingham records having observed it in the Zammee river and at Kaukarit. My own men got numerous specimens at Malewoon. Mr. Blyth has received it from Arrakan.

In winter it probably occurs in Southern China and the Indo-Burmese countries. At that season of the year it is diffused over the whole peninsula of India and the Andaman Islands. It breeds in South-eastern Siberia and North China.

This species is one of the commonest Reed-Warblers in Pegu. It does not affect concealment so much as the others, and is consequently more often seen. It is also more of a water-bird, being most usually seen on the margins of ponds and nullahs, both in grass and bushes. It has a harsh croaking note. It arrives and leaves the country at much the same time as *A. orientalis*, to which species it bears a close general resemblance.

Genus UROSPHENA, *Swinhoe*.

102. UROSPHENA SQUAMICEPS.

SWINHOE'S REED-WARBLER.

Tribura squameiceps, *Swinh.* *P. Z. S.* 1863, p. 292. **Horornis squameiceps**, *David et Oust. Ois. Chine*, p. 240. **Urosphena squamiceps**, *Swinh. Ibis*, 1877, p. 205, pl. iv.; *Hume & Dav. S. F.* vi. p. 343; *Hume, S. F.* viii. p. 100. **Cettia squamiceps**, *Seebohm, Cat. Birds B. Mus.* v. p. 142.

Description.—The whole upper plumage rich hair-brown tinged with chocolate, the feathers of the head rounded, the edges darker and the shafts rather pale; the outer webs of the wing-quills rather brighter; a very distinct stripe, extending from the nostril over the eye to the nape, buffy white; lores and a streak between the supercilium and ear-coverts very dark brown; ear-coverts and cheeks buffy white, each feather tipped with brown; the whole lower plumage pale buffish white, turning to almost pure white on the chin, throat and centre of abdomen. The sexes probably do not differ in colour.

Legs, feet and claws fleshy white; two thirds of lower mandible fleshy white; rest of lower mandible and upper one horny brown; irides dark brown. (*Davison*.)

Length 4 inches, tail 1·2, wing 2·1, tarsus ·7, bill from gape ·65: the second primary is about equal to the eighth; the first primary is about ·6 inch in length. It is not known whether the sexes differ in size.

Swinhoe's Reed-Warbler is probably only a winter visitor to Burmah. Mr. Davison procured it in the extreme north of Tenasserim, at Bankasoon; and it has not yet been obtained in any other part of Burmah.

It occurs in winter in South China and Formosa; it has also been observed in Japan, at the mouth of the Ussuri river and at Wladiwostock, and it probably breeds in these places.

Mr. Davison observes:—"I found them always on the ground, hopping about and turning over the dead leaves, and working in and out and about the fallen trunks and branches. Sometimes, when disturbed, they would fly up on to some low branch; but they had hardly settled before they dropped again to the ground. They were not at all shy, and could be approached within a couple of feet. . . . When disturbed, they utter a feeble *chick, chick*, which is the only note I have heard. The one examined had eaten minute insects."

Genus TRIBURA, *Hodgs.*

103. TRIBURA INTERMEDIA.

THE SILKY REED-WARBLER.

Dumeticola intermedia, *Oates*, *S. F.* ix. p. 220. *Tribura intermedia*, *Brooks*, *S. F.* ix. p. 445. *Tribura taczanowskia* (*Swinh.*), *apud Oates*, *S. F.* x. p. 218.

Description.—*Male and female.* The whole upper plumage russet-brown, the wings plain brown, the outer webs edged with russet-brown; tail russet-brown, the shafts viewed from below being white and the tips of all the feathers paler; an indistinct narrow supercilium whitish; lores tinged with brown; ear-coverts hair-brown, with the shafts paler; cheeks white, the feathers generally tipped with brown; whole lower plumage white, tinged with buff, especially on the breast, flanks and under tail-coverts, the feathers of which are broadly tipped with white; axillaries and under wing-coverts pale buffy white.

The *young* are strongly suffused on the lower plumage and cheeks with deep yellowish buff, and the feathers of the throat are generally tipped with dusky brown.

Length 5·5 inches, tail 2·4, wing 2·2, tarsus ·8, bill from gape ·65: the second primary is equal to the eighth or ninth; the first primary is very small, measuring only ·5 inch in length.

Both prior and subsequently to describing this species, I arrived at the conclusion that it was identical with *Locustella taczanowskia*, Swinhoe (*P. Z. S.* 1871, p. 355). On reconsidering the question, I am now of opinion that the two may be distinct; and I therefore keep them separate for the present. *L. taczanowskia* is represented by a sole specimen, a young bird, in the Seeböhm museum. I brought to England some six specimens of young *T. intermedia*, and not one of them is a perfect match for Swinhoe's bird. His example was procured in the Trans-Baikal region; mine in Burmah. I think therefore that when adult birds of *L. taczanowskia* are procured, they may prove distinct from the adults of *T. intermedia*.

The present species has a close ally in *T. luteiventris* of India; but this latter differs, not only in the coloration of the lower plumage, but structurally. The exposed part of the first primary is half the length of the second; whereas in *T. intermedia* the exposed part of the first primary is only a third of the length of the second. In other words, the tip of the second primary is much nearer the tip of the wing in one bird than in the other.

The Silky Reed-Warbler has been found in the neighbourhood of Kyeikpadein in Pegu, and along the banks of the Pegu river, near the canal lock. In the collection of Mr. Seebohm there is an adult specimen which was procured in the Bhootan Doars.

This species is found in precisely the same localities as *L. lanceolata*. On first arrival it is found only in the growing paddy, then in the stubble, and later on in thickets of grass. It moves about very quickly, and flies up at one's feet and settles down again in the vegetation at once. Towards evening I found it restless and more disposed to come into view, and consequently easier to shoot. I procured them from November to the middle of February.

Genus LOCUSTELLA, *Kaup*.

104. LOCUSTELLA CERTHIOLA.

PALLAS'S GRASSHOPPER-WARBLER.

Motacilla certhiola, *Pall. Zoogr. Rosso-Asiat.* i. p. 509. **Locustella rubescens**, *Bl. J. A. S. B.* xiv. p. 582; *Jerd. B. Ind.* ii. p. 160. **Locustella temporalis**, *Jerd. B. Ind.* ii. p. 160. **Calamodyta doriæ**, *Salvad. Atti R. Ac. Sc. Tor.* iii. p. 531; *id. Ucc. Born.* p. 250; *Sharpe, Ibis*, 1876, p. 41, pl. ii. fig. 2. **Locustella certhiola**, *Dresser, Birds Eur.* ii. p. 633, pl.; *David et Oust. Ois. Chine*, p. 248; *Legge, Birds Ceylon*, p. 548; *Hume, S. F.* viii. p. 100; *Seebohm, Cat. Birds B. Mus.* v. p. 114; *Oates, S. F.* x. p. 216. **Locustella minor**, *David et Oust. Ois. Chine*, p. 250.

Description.—*Male and female.* The young bird up to October has the whole upper plumage, including the coverts and tertiaries, blackish brown; the feathers of the head narrowly, and all the others broadly margined with reddish brown; rectrices chiefly blackish brown, irregularly margined with rufous-brown, and very broadly terminated with whitish. The lower plumage is buff, pale on the throat and upper breast, dark on the breast, and increasing in depth of colour down to the tail-coverts; the throat and breast are closely spotted with triangular blackish-brown marks; stripe over the eye, and a streak from the bill under the cheeks and ear-coverts yellowish buff; ear-coverts hair-brown; under wing-coverts whitish; primaries and secondaries dark brown, narrowly edged with reddish brown.

Birds in this plumage are undoubtedly nestlings. But they differ from what Mr. Seebohm says of this stage by not being yellowish below to such an extent as his description implies or Mr. Dresser's plate shows it to be. In the latter also the spots on the throat and breast are hardly

numerous enough for an average young specimen, and the tippings to the tail-feathers are too narrow, they being really about $\cdot 2$ inch in breadth.

Birds with the bright yellowish-buff lower plumage are not spotted, and I take this to be the stage into which the nestling moults in October or November. In this stage the upper plumage is much brighter, caused by the black centres to the feathers being smaller and the margins larger; the rump is almost unstreaked. The black on the rectrices is less in extent, and the white tips reduced to the same size as in the adult; the eye-streak, the chin, throat and the whole lower plumage are lively yellowish buff, intensifying and becoming warm ochreous on the flanks and under tail-coverts. There are no spots, but a few of the feathers on the sides of the neck are obsoletely tipped darker, but so slightly as not to be noticeable without close inspection.

From this stage the bird in spring moults into the full plumage. The adults, according to Mr. Seebohm ('Ibis,' 1879, p. 13), have both a spring and an autumn plumage, differing from each other in the colour of the underparts; but my large series does not support this view.

The adults (both sexes seem alike) have the head blackish brown, each feather narrowly edged with pale reddish brown. A collar behind the nape is reddish brown without marks. This unspotted collar is only seen in a very few birds, and I take it to indicate very old birds; the back, scapulars and wing-coverts dark blackish brown, rather broadly edged with reddish brown; the rump reddish brown, without marks; the upper tail-coverts reddish brown, each feather with a large central drop of black; the outer tail-feathers are nearly all black, the rufous margins being small. Towards the middle of the tail each pair of rectrices becomes progressively less black and more margined with rufous, and the middle pair are rufous with a broad shaft-line of black. All the rectrices are tipped with white, the breadth of the tips being about $\cdot 05$ of an inch. Eye-streak yellowish white; ear-coverts hair-brown, and a patch below the ear-coverts yellowish buff; chin, throat and centre of abdomen whitish; remainder of the underparts delicate buff, darkening on the flanks and under tail-coverts; the wings are brown, the tertiaries being edged with whitish, and the other quills with pale rufous-brown.

As a rule, the underparts are quite unmarked; but in many birds in adult plumage there are a few tiny marks on the feathers of the sides of the breast.

Iris sepia-brown; legs white; bill dark brown; mandible ochraceous. (*Everett.*)

Length 5·5 inches, tail 2·2, wing 2·3, tarsus $\cdot 85$, bill from gape $\cdot 7$: the second primary is generally equal to the fourth, but sometimes slightly longer or shorter; the first primary is rather small, measuring about $\cdot 4$ or $\cdot 5$ inch in length. The sexes do not differ appreciably in size.

Pallas's Grasshopper-Warbler occurs in the cold weather in Pegu, about Kyeikpadein and the banks of the Pegu Canal, but probably in many other places as well, and probably also in Arrakan and Tenasserim.

It is found in winter in India and Ceylon, China and the Malay archipelago, and probably in the Indo-Burmese countries, for Col. Godwin-Austen procured it in the Khasia hills. Occasionally it straggles into Europe. In summer it is found in Siberia, and Mr. Seebohm found it breeding at Yen-e-saisk in swampy thickets near the banks of the river.

This Warbler is very shy and is never by any chance seen except by accident. It swarms in inundated paddy-fields to an incredible extent. I have procured it from the 18th of October to the 16th of December. At this latter date the paddy-harvest begins, and the bird disappears entirely. Unlike *L. lanceolata* it does not appear to go into grass at all. It frequents those fields in which the paddy is very high and thick and ground very swampy. It rises at one's feet and settles again at once, affording only a snap shot at about two yards distance.

Dr. Dybowski states that it makes its nest in a tuft of grass close to the ground, and lays five or six eggs which are rosy white speckled with reddish brown.

105. LOCUSTELLA LANCEOLATA.

THE STREAKED GRASSHOPPER-WARBLER.

Sylvia lanceolata, Temm. *Man. d'Orn.* iv. p. 614. *Locustella lanceolata*, Wald. *Ibis*, 1874, p. 139; *id.* in *Bl. B. Burm.* p. 121; Dresser, *Birds Eur.* ii. p. 617, pl.; David et Oust. *Ois. Chine*, p. 251; Hume & Dav. *S. F.* vi. p. 339; Hume, *S. F.* viii. p. 100; Seebohm, *Cat. Birds B. Mus.* v. p. 118; Oates, *S. F.* x. p. 215. *Lusiniopsis hendersonii*, Cass. in *Proc. Phil. Ac. Sc.* 1858, p. 194. *Locustella minuta*, Swinhoe, *P. Z. S.* 1863, p. 93. *Locustella macropus*, Swinhoe, *P. Z. S.* 1863, p. 93. *Locustella subsignata*, Hume, *S. F.* i. p. 409.

Description.—*Male and female.* Whole upper plumage russet-brown, each feather with a distinct dark-brown central streak. Quills brown, the primaries and secondaries edged with russet-brown on the outer webs, the tertiaries edged with the same on both webs; tail brown, obsoletely edged paler, and the shafts viewed from below white; ear-coverts hair-brown; sides of the head streaked with russet- and dark brown; chin, upper throat and centre of the abdomen spotless, pale ochraceous white; the remainder of the under plumage darker ochraceous, streaked with blackish brown; under tail-coverts sometimes streakless, more frequently largely streaked with blackish brown; under wing-coverts and axillaries pale vinaceous.

The streaks on the lower surface become reduced in what I take to be

aged birds. The bird least marked in my series has a few streaks only on the centre of the breast and on the flanks, with one or two faint marks on the under tail-coverts. In this state it is very like the Indian *L. hendersoni*. The majority of the birds are densely streaked from the chin to the tail-coverts, except on the abdomen, and all these are characterized by a richer tone of colouring beneath.

The tail-coverts vary in the most extraordinary manner. In many of the birds they are entirely unmarked; in others densely streaked, and this follows no rule viewing it in connexion with the amount of streaking on the other parts of the lower plumage. I can make no deductions of value from the examination of my large series. We require authenticated birds of the year and old birds shot off the nest before any thing can be made out for certain.

Taking these variations into consideration, I have no doubt that *L. macropus* and *L. minuta* represent the same species as *L. lanceolata*.

Legs fleshy white; claws pale horn-colour; upper mandible dark brown, lower one yellow at base, brown at tip; iris brown.

Length 5·2 inches, tail 1·8, wing 2·1, tarsus ·75, bill from gape ·6: the second primary is generally equal to the fourth; the first primary is small, measuring about ·4 or ·5 inch in length. The female is about the same size as the male.

The Streaked Grasshopper-Warbler is common in the cold weather at Kyeikpadein in Pegu. I procured it abundantly from the 19th of October to the 28th of February, after which date none were to be found. Mr. Davison procured it at various places in Tenasserim quite down to the extreme southern portion of the Division.

In winter it has been found in the Andaman Islands. It is diffused over China, and will probably be found in the Indo-Burmese countries, the Siamese peninsula and the Malay archipelago. In summer it is found throughout Siberia, and it ranges westwards to St. Petersburg.

This Warbler on first arrival goes into the growing paddy, and when this is cut it remains in the stubble until this is burnt or trodden down by cattle. When this stubble ceases to afford it protection it betakes itself to grass, where it stays in the thickest clumps. As long as the paddy-fields are wet it feeds from stalk to stalk, but when the ground gets dry it seems to feed habitually on the ground, running about amongst the roots of the herbage and rice. It is a very difficult bird to procure, concealing itself closely and uttering no note by which its presence can be detected.

Subfamily DRYMÆCINÆ.

Genus MEGALURUS, *Horsf.*

106. MEGALURUS PALUSTRIS.

THE STRIATED MARSH-WARBLER.

Megalurus palustris, *Horsf. Trans. Linn. Soc.* xiii. p. 159; *Jerd. B. Ind.* ii. p. 70; *Hume, Nests and Eggs*, p. 276; *Bl. B. Burm.* p. 118; *Wald. Tr. Z. S.* ix. p. 189; *Oates, S. F.* v. p. 156; *Tweedd. P. Z. S.* 1877, p. 694; *Hume & Dav. S. F.* vi. p. 295; *Anders. Yunnan Exped.* p. 639; *Hume, S. F.* viii. p. 97; *Oates, S. F.* x. p. 209.

Description.—*Male and female.* Upper plumage fulvous-brown, the head rather rufous and each feather with a dark brown stripe down the shaft; the feathers of the back and scapulars each with a broad black stripe down the centre; wing-coverts blackish brown, broadly edged with fulvous-brown; quills blackish brown, the primaries narrowly, and the others broadly edged with rufous-brown; tail fulvous-brown, the shafts and the portion of feather near them dusky; a broad supercilium, becoming indistinct near the nape, greyish white; chin and throat white; sides of the neck and all the lower plumage earthy brown, tinged with buff on the flanks, vent and under tail-coverts; a few streaks of brown on the breast and under tail-coverts.

The young bird is rich rufous-brown above, and the black streaks are not so well developed as in the adult. The lower plumage is rich yellowish buff tinged with chestnut on the flanks, vent and thighs.

In another stage, which is probably the young after the autumn moult, the whole upper plumage is the same as in the adult; the lower plumage is yellowish buff tinged with brown on the flanks and vent, and the streaks on the breast are very numerous and distinct.

Iris pale brown; eyelids plumbeous; bill horny brown, dark on the upper mandible and rather pale on the lower; mouth dark bluish brown; legs pale pink; claws pinkish horn-colour.

Length 9 inches, tail 4·5, wing 3·2, tarsus 1·3, bill from gape ·95; these are measurements of females from Pegu. The males are very much larger; according to Mr. Davison they average—length 10·4 inches, tail 4·9, wing 4, tarsus 1·4, bill from gape 1.

The Striated Marsh-Warbler is locally distributed over Pegu, being found only where there is abundance of thick, tall grass. In the plains extending on both sides the Pegu Canal it is extremely abundant, and a conspicuous feature in these silent and unfrequented districts. It is probably found elsewhere in suitable localities. I once observed it at Thayetmyo. Mr. Davison found it not uncommon in Tenasserim in the plains of the northern and central sections of the Division.

It has a wide range. It has been found in Central India and in the Eastern Bengal tracts. It occurs in the Indo-Burmese countries and in Java, but it is not known to inhabit any portion of the Malay peninsula.

This large Warbler, as before remarked, is found only in large tracts of grass-land. It generally keeps in couples, and seldom moves away from the spot it selects for its feeding-ground. During the cold weather and up to the end of the breeding-season this bird has a fine song which it utters whilst flying from one patch of grass to another. In doing this it mounts about thirty or forty feet into the air, and comes down with motionless, outspread wings. It feeds on the ground principally. I have often found the nest in May, a structure made of coarse grasses and partially domed. It is placed in a tuft of grass near the ground. The eggs are usually four in number, and are white speckled with purplish brown.

Genus SUTORIA, *Nichols*.

107. SUTORIA SUTORIA.

THE INDIAN TAILOR-BIRD.

Motacilla sutoria, *Forst. Ind. Zool.* p. 17. **Motacilla longicauda**, *Gm. Syst. Nat.* i. p. 954. **Orthotomus longicauda**, *Moore, P. Z. S.* 1854, p. 81; *Jerd. B. Ind.* ii. p. 165; *Hume, Nests and Eggs*, p. 331; *Hume, S. F.* iii. p. 135; *Bl. & Wald. B. Burm.* p. 120; *David et Oust. Ois. Chine*, p. 261. **Orthotomus edela** (*Temm.*), *apud Bl. & Wald. B. Burm.* p. 120. **Orthotomus sutorius**, *Sharpe, Ibis*, 1877, p. 109; *Oates, S. F.* v. p. 158; *Anders. Yunnan Exped.* p. 642; *Hume & Dav. S. F.* vi. p. 345; *Hume, S. F.* viii. p. 101; *Scully, S. F.* viii. p. 305; *Legge, Birds Ceylon*, p. 517. **Sutoria sutoria**, *Sharpe, Cat. Birds B. Mus.* vii. p. .

Description.—*Male*. Forehead and anterior half of crown rufous, shading off into ashy on the remainder of the crown and nape; lores greyish white; ear-coverts very pale rufescent, with the shafts white; cheeks and under plumage dull white tinged with yellowish and washed with olive-grey on the sides of the body; back, rump, scapulars and upper tail-coverts yellowish green; central tail-feathers much elongated and coloured like the back; the others greenish brown, each feather narrowly tipped white and with a patch of brown in front of the white tip; wings and coverts brown, narrowly edged with yellowish green.

The *female* differs only in not having the central tail-feathers elongated.

Iris reddish yellow; eyelids plumbeous; the edges reddish yellow; upper mandible dark horny; the lower pale flesh-colour; legs reddish flesh-colour; claws pale horn.

Length about 6 inches, tail 2·5, wing 1·9, tarsus ·8, bill from gape ·6.

The female is rather smaller, the tail being only 1·5, and the total length 4·3 inches.

The Indian Tailor-bird occurs abundantly throughout every portion of Arrakan and Pegu, except, perhaps, on the higher hills. Mr. Davison found it generally distributed in Tenasserim as far south as Mergui, and Capt. Bingham states that it is found in the Thoungyeen valley. Capt. Wardlaw Ramsay obtained it in Karennee.

This species is widely distributed. It occurs over the whole peninsula of India, the island of Ceylon, the Indo-Burmese countries and South China. Dr. Tiraud states that it is found also in Cochin China, and Mr. Gould received it from Siam.

The *S. edela*, which, Mr. Blyth states, occurs in Burmah, was probably entered in his Catalogue by an oversight. This species, so far as is known, occurs only in Java, and differs from *S. sutoria* only in some very trifling particulars.

This species is a very common and well-known bird. It is spread over the whole country, being found as frequently in gardens and compounds as in forests and other jungle. It has a remarkably loud note. It is chiefly arboreal, keeping almost entirely to trees and shrubs, and seldom descending to the ground.

This bird and all the others of this section are remarkable for the beautiful nests they make. The present species breeds in Burmah from May to August, or perhaps earlier. A large leaf being selected, most frequently one not far from the ground, the edges are skilfully drawn together and fastened with vegetable fibres. In the receptacle thus formed, which is more or less of a cone with the point downwards, the nest is built. The materials are chiefly cotton, vegetable down, and fine grasses, but other articles, such as bits of thread and rags from some neighbouring dwelling, enter into the composition of the nest. The eggs are usually four in number, and are pale green speckled with rusty red.

Genus ORTHOTOMUS, *Horsf.*

108. ORTHOTOMUS RUFICEPS.

THE RED-HEADED TAILOR-BIRD.

Edela ruficeps, *Less. Tr. d'Orn.* p. 309 (*nec Less. Cent. Zool.* p. 212, pl. 71).

Orthotomus sericeus, *Temm. Pl. Col. Texte to livr.* 101. *Orthotomus ruficeps*, *Moore, P. Z. S.* 1854, p. 79; *Salvad. Ucc. Born.* p. 248; *Sharpe, Ibis*, 1877, p. 114; *Hume & Dav. S. F.* vi. p. 346; *Hume, S. F.* viii. p. 101.

Description.—*Male.* Forehead, crown and nape chestnut; back, scapu-

lars and rump ashy; upper tail-coverts ashy ruofus; tail chestnut; wing and coverts brown edged with ashy; cheeks, lower half of the ear-coverts and entire under plumage white, tinged with ashy on the sides of the body; thighs ferruginous.

The *female*, according to Mr. Hume, has a large black spot on each tail-feather. From the birds I have been able to examine I should judge these spots to indicate immaturity. In one specimen from Malacca, it is combined with a head which is mixed chestnut and brown, and the bird is undoubtedly young. In another specimen with black spots on the tail, the head is, however, as fully rufous as in the adult male.

Females had the lower mandibles fleshy pink; upper mandibles horny brown. One female had the legs and feet fleshy pink; the other had the feet, claws, and back of tarsi fleshy, front of tarsi pale brown; in one the irides were salmon, in the other deep brown. (*Davison*.)

Length 5 inches, tail 1·5, wing 1·9, tarsus ·8, bill from gape ·8. The female is of about the same size.

The Red-headed Tailor-bird has occurred as a rare straggler at Malewoon in Tenasserim, where Mr. Davison obtained it. It extends down the Malay peninsula, and is found in Sumatra, Borneo, and Palawan.

Nothing whatever is recorded of its habits.

109. ORTHOTOMUS ATRIGULARIS.

THE BLACK-NECKED TAILOR-BIRD.

Orthotomus atrogularis, *Temm. Pl. Col.* livr. 101; *Moore, P. Z. S.* 1854, p. 78; *Salvad. Ucc. Born.* p. 249; *Sharpe, Ibis*, 1877, pp. 16, 113; *Hume & Dav. S. F.* vi. p. 345; *Hume, S. F.* viii. p. 101; *Oates, S. F.* x. p. 219. *Orthotomus flaviviridis*, *Moore, P. Z. S.* 1854, p. 79; *Wald. in Bl. B. Burm.* p. 121. *Orthotomus nitidus*, *Hume, S. F.* ii. pp. 478, 507, iii. p. 325.

Description.—*Male*. The lores and the whole top of the head from the nostrils to the nape bright chestnut; the ear-coverts rufous-white; chin, throat and cheeks dull white, the black bases of the feathers showing through a good deal; underside of neck black, with a few narrow broken white bars; breast, abdomen and vent white; under tail-coverts bright yellow; flanks white, suffused with yellow; back, scapulars, rump and upper tail-coverts green, washed with yellow, and brighter on the latter part; tail brown, edged externally with yellowish green, and all the feathers tipped with yellowish white; under surface of tail yellowish; under wing-coverts pale yellow; edge of wing bright yellow; quills brown, edged broadly on the outer web with rather bright greenish yellow; upper wing-coverts brown, both webs of each feather broadly edged with greenish yellow; thighs orange-yellow.

The *female* has hardly any black on the fore neck, and the yellow on the edge of the wing is duller.

Iris orange-brown; eyelids plumbeous; upper mandible brown, lower one and gape flesh-colour; legs flesh-colour; claws pale horn-colour.

Length 4·5 inches, tail 1·6, wing 1·8, tarsus ·8, bill from gape ·7. The female is much the same size as the male.

The Black-necked Tailor-bird is very common in Southern Pegu from Rangoon (where Capt. Wardlaw Ramsay obtained it) up to Pegu, and still further north up the valley of the Pegu river. Mr. Davison found it throughout Tenasserim, except on the higher hills.

It extends down the Malay peninsula, and is also found in Borneo. Dr. Tiraud gives it from Cochin China. Col. Godwin-Austen procured it in the hill-tracts of Eastern Bengal.

This Tailor-bird frequents thick forest and brushwood, and is not found much in gardens or cultivated land. It is entirely arboreal, never descending to the ground to feed.

Genus PHYLLOBATES*, *Sharpe*.

110. PHYLLOBATES CORONATUS.

THE GOLDEN-HEADED TAILOR-BIRD.

Orthotomus coronatus, *Jerd. & Bl. P. Z. S.* 1861, p. 200; *Jerd. B. Ind.* ii. p. 168; *Hume, Nests and Eggs*, p. 334; *Wald. in Bl. B. Burm.* p. 121; *Sharpe, Ibis*, 1877, p. 115; *Hume & Dav. S. F.* vi. p. 346; *Hume, S. F.* viii. p. 101. **Phyllobates coronatus**, *Sharpe, Cat. Birds B. Mus.* vii. p.

Description.—*Male and female.* Forehead and crown chestnut; a short stripe over the eye yellow, this line produced over the ear-coverts white; lores and the upper part of the ear-coverts dark ashy brown; lower part of the ear-coverts silvery white; nape, sides and back of the neck ashy; back, rump, upper tail-coverts and wing-coverts yellowish green; wings brown, edged with yellowish green; tail brown, the inner webs of the two outer pairs of feathers white; chin, throat and breast white; remainder of lower plumage bright yellow.

Legs and feet yellowish fleshy; upper mandible, tips and edges of lower mandible along commissure black; rest of bill yellowish fleshy; irides brown. (*Davison*.)

* In dealing with those Warblers which are contained in Mr. Sharpe's forthcoming volume of the Catalogue, I again gladly avail myself of his kind permission to make use of his nomenclature.

Length 4·5 inches, tail 1·7, wing 1·8, tarsus ·75, bill from gape ·7. The female is of about the same size.

The Golden-headed Tailor-bird was procured in the Tsankoo hills, east of Tonghoo, by Capt. Wardlaw Ramsay at an elevation of 3000 feet. Mr. Davison also obtained it on the higher slopes of Mooleyit in Tenasserim.

It is a bird which is not very well known. It occurs in Sikhim and in the hill-tracts of Eastern Bengal.

In habits this species does not differ from the Indian Tailor-bird. Mr. Davison observes that they are not easily overlooked, as on the approach of any one they utter a low buzzing note of alarm, which they keep up as long as they suspect danger.

Genus BURNESIA, *Bl.*

111. BURNESIA FLAVIVENTRIS.

THE YELLOW-BELLIED WREN-WARBLER.

Orthotomus flaviventris, *Deless. Rev. Zool.* 1840, p. 101. **Prinia flaviventris**, *Jerd. B. Ind.* ii. p. 169; *Hume, Nests and Eggs*, p. 334; *Bl. & Wald. B. Burm.* p. 118; *Oates, S. F.* v. p. 153; *Wardlaw Ramsay, Ibis*, 1877, p. 466; *Hume & Dav. S. F.* vi. p. 347; *Hume, S. F.* viii. p. 101; *Doig, S. F.* viii. p. 378; *Butler, S. F.* ix. p. 386; *Oates, S. F.* x. p. 219. **Prinia rafflesi**, *Tweedd. Ibis*, 1877, p. 311, pl. vi. fig. 1. **Burnesia flaviventris**, *Sharpe, Cat. Brit. B. Mus.* vii. p. .

Description.—*Male and female.* Forehead, crown, lores, and ear-coverts dark ashy; nape, back, scapulars, rump, and upper tail-coverts yellowish green; tail brown, tinged with fulvous; quills and coverts brown, edged with the colour of the back; cheeks, chin, throat and breast white; abdomen, sides of the body, vent and under tail-coverts bright yellow.

In new plumage the tail is tipped rather broadly with pale yellow. These tippings are, however, soon worn off.

Mouth black; iris reddish yellow; eyelids plumbeous; bill black; legs orange-fleshy; claws yellowish. In the non-breeding season the mouth is flesh-coloured.

Length 5·7 inches, tail 2·5 to 3, wing 1·75, tarsus ·8, bill from gape ·65. The female is rather smaller.

This bird does not appear to undergo any seasonal change of plumage, except in the acquisition of a short white superciliary streak in winter. The tail is of the same length throughout the year. Young birds have the chin, throat and breast yellow like the abdomen. *B. sonitans*, Swinhoe, from China appears to me a fairly distinguishable species. The lower plumage is strongly tinged with buff in that species. Mr. Sharpe has informed me

that *B. rafflesi* is inseparable from *B. flaviventris*. *Prinia superciliaris* of Salvadori (Ucc. Borneo, p. 249) is probably the same species, as the present bird varies much in coloration, especially with regard to the eye-streak and the sides of the head. The superciliary streak is generally present in birds shot in the cold weather, but not always. It is probably due both to season and age combined, only the very old birds perhaps acquiring it.

The Yellow-bellied Wren-Warbler is very abundant in the marshes near Rangoon. I have observed it to be very abundant in the plains lying between the Pegu and Sittang rivers, as far north at least as Paghein. Mr. Davison procured it only in the extreme south of Tenasserim; but it will probably be found to occur throughout the whole Division in suitable localities.

It is spread over Northern India, more or less along the base of the Himalayas, up to Scinde, and it is found in Bengal and the eastern hill-tracts of that province. It has occurred in Singapore and in Sumatra, and Dr. Tiraud gives it from Cochin China.

This species wherever it occurs is very plentiful. Generally, when engaged in seeking food, it threads its way through bushes and grass, and is seldom seen; but at frequent intervals it mounts to the top of a tall reed and utters a short merry song, and then suddenly plunges into cover again, with a peculiar loud-sounding snap of the bill. I have frequently found the nest from May to September. It is an oval cup-like structure made of vegetable down and the flowering ends of the finer grasses, held together by grass. It is generally placed near the ground, and attached to two or three stems of elephant-grass. The eggs are brick-red in colour and generally four in number.

Genus PRINIA, *Horsf.*

112. PRINIA BLANFORDI.

THE BURMESE WREN-WARBLER.

Drymoipus extensicauda (*Swinh.*), *apud Oates, S. F.* iii. p. 340. **Drymoeca blanfordi**, *Wald. in Bl. B. Burm.* p. 118; *Hume, S. F.* v. p. 57. **Drymoeca extensicauda** (*Swinh.*), *apud Oates, S. F.* v. p. 159, x. p. 221. **Drymoipus extensicaudata** (*Swinh.*), *apud Armstrong, S. F.* iv. p. 328. **Drymoica blanfordi**, *Hume & Dav. S. F.* vi. p. 349. **Drymoica extensicauda** (*Swinh.*), *apud Hume & Dav. S. F.* vi. p. 350; *Bingham, S. F.* ix. p. 186.

Description.—*Male and female in winter.* Whole upper plumage bright fulvous-brown; the feathers of the head dark-centred; wings brown, edged with fulvous; sides of the head and lower plumage bright fulvous, paler on the chin, throat and centre of the abdomen; tail fulvous-brown,

edged brighter, obsoletely barred, and each feather with a large, distinct, subterminal brown patch and a fulvous-white tip. In *summer* the upper plumage is olive-brown, darker on the head, the feathers of which are centred with dark brown; wings brown, edged with pale olive-brown; sides of the head and lower plumage pale fulvous; tail brown, obsoletely barred and marked at the end as in the winter plumage.

Iris orange-yellow; eyelids plumbeous, the edges orange; upper mandible fleshy brown; lower pale fleshy, the tips dusky; mouth flesh-coloured; legs reddish yellow; claws pinkish horn.

Length in winter 6 inches, in summer 5·25; wing 1·9; tail in winter 3, in summer 2-2·5; tarsus ·8; bill from gape ·6. The female is about the same size as the male, but generally has the tail shorter.

The Pegu bird was long ago identified by Mr. Hume with the Chinese species, *P. extensicauda*. On working up these birds in England I find that the Chinese and Pegu birds differ, and that Lord Walden quite properly gave a name to the latter. These two species and *P. inornata* are very closely allied, and the following remarks may assist in discriminating them, though Mr. Sharpe, in his Catalogue, unites them all.

In summer plumage *P. inornata* has the underside of the tail suffused with white; the subterminal spots are small, not more than half the width of the feather, and the upper plumage is a plain ashy brown. *P. blanfordi* has the upper plumage decidedly tinged with olive; the subterminal spots on the tail are very well defined, large, and the full width of the feather. In *P. extensicauda* the upper plumage is tinged with fulvous; the subterminal spots are small and indistinct.

In winter plumage, when the tails are long, *P. inornata* has the upper plumage reddish brown; the tail-feathers underneath and the tips are decidedly rufous, and the subterminal spots are very faint or absent. In *P. blanfordi* the upper plumage is fulvous-brown, the tail is not rufous below, and the subterminal spots are broad and distinct. In *P. extensicauda* the upper plumage is fulvous-brown; the tips to the tail-feathers are whitish and the subterminal spots broad but indistinct. The lower plumage is tinged with yellow, while in the other two it is tinged with rufous. The tail, when fully grown, is half an inch longer in *P. extensicauda* than in the others.

The Burmese Wren-Warbler is very abundant in Pegu, in the southern portion, and up the Sittang valley to Tonghoo, along the western side of that river. Capt. Wardlaw Ramsay procured it at Tonghoo, and I myself traced it up to that town, where it began to be rare. Dr. Armstrong procured one specimen at Elephant Point. Mr. Davison met with it in Tenasserim as far south as Tavoy, but it does not appear to have been anywhere common. Capt. Bingham states that he obtained it at Kaukarit and at Moulmein.

The stronghold of this Warbler appears to be the vast plain of grass which lies between the Pegu and the Sittang rivers. Northwards at Tonghoo and southwards at Rangoon it becomes rare, and I do not think that it is found in the Irrawaddy delta or in the valley of that river.

On a former occasion I wrote :—"It is an amusing little bird. Perched on the summit of a stalk of elephant-grass, it gives out its monotonous song, consisting of one note repeated some twenty times; then, with its ample tail held at right angles to the back, it skips away to the bottom of the next tuft, only to reappear shortly on the summit with its persistent little song. These birds seem hardly able to regulate their flight. They seldom fly more than twenty yards, and in this short space they appear in imminent peril of turning sundry summersaults, for the bill on these occasions points to the ground, while the tail, bent well over the back, is nearly horizontal."

The frequency with which one finds the nests of this small bird in the rains is a positive grievance to the collector. In some favoured localities there is a nest at every ten yards. The structure is cylindrical or oval in shape, made entirely of fine grasses most strongly woven together. Although the walls can be seen through, yet they resist any ordinary efforts to tear them asunder, and altogether the nest is a beautiful specimen of bird-architecture. The eggs, usually four in number, are pale blue, marked with spots and scrawls of purplish brown.

113. PRINIA INORNATA.

THE INDIAN WREN-WARBLER.

Prinia inornata, Sykes, *P. Z. S.* 1832, p. 89. **Sylvia longicaudata**, Tick. *J. A. S. B.* ii. p. 576. **Prinia fusca**, Hodgs. *Gray's Zool. Misc.* p. 82; *id.* *P. Z. S.* 1845, p. 29. **Prinia adamsi**, Jerd. *B. Ind.* ii. p. 170; Hume, *Nests and Eggs*, p. 335; *id.* *S. F.* viii. p. 101. **Drymoipus inornatus**, Jerd. *B. Ind.* ii. p. 178; Hume, *Nests and Eggs*, p. 346; Hume & Henders. *Lah. to Yark.* pl. xvii. fig. 1; Brooks, *S. F.* iii. p. 295, vii. p. 468; Anders. *Yunnan Exped.* p. 640. **Drymoipus longicaudatus**, Jerd. *B. Ind.* ii. p. 180; Hume & Henders. *Lah. to Yark.* p. 215, pl. xvii. fig. 2; Butler, *S. F.* iii. p. 483; Brooks, *S. F.* iv. p. 229; Hume, *S. F.* iv. p. 407. **Drymoipus fuscus**, Hume, *Nests and Eggs*, p. 348. **Drymoipus terricolor**, Hume, *Nests and Eggs*, p. 349; Brooks, *S. F.* iv. p. 229; Hume, *S. F.* iv. p. 407. **Drymoipus longicaudus**, Hume, *Nests and Eggs*, p. 350. **Drymœca longicaudata**, Bl. *B. Burm.* p. 118; Hume, *S. F.* viii. p. 101. **Drymoica fusca**, Hume, *S. F.* vii. p. 395. **Drymœca inornata**, Hume, *S. F.* viii. p. 101. **Drymœca fusca**, Hume, *S. F.* viii. p. 101. **Drymœca insularis**, Legge, *Birds Ceylon*, p. 529, pl. xxv. fig. 2.

Description.—Male and female in winter. Upper plumage and tail rufous-brown, the feathers on the crown dark-centred; the tail-feathers tipped

paler; the subterminal patches small and indistinct, frequently altogether absent; wings brown, edged with bright rufous; sides of the head and lower plumage fulvous, darker on the breast, flanks, and under tail-coverts; thighs dark rufous. *In summer* the upper plumage is ashy brown, the centres of the feathers darker, especially on the head; wings dark brown, edged with ashy white; tail brown, suffused with white as seen from below, tipped paler, and with subterminal marks of brown tolerably well defined; sides of the head and lower plumage white, tinged with very pale fulvous. The *young* in first plumage are very rufous.

Length in winter 6 inches, in summer 5 to 5·5; tail in winter 2·9, in summer 2·4; wing 2, tarsus ·8, bill from gape ·6. The female is about the same size, but has the tail generally shorter.

The Indian Wren-Warbler is said by Mr. Blyth to occur in Arrakan. I do not think that Mr. Blyth could have confounded it with the preceding species, for this latter seems to be very local and confined to Pegu, whereas *P. inornata* has a most extensive range, and is most likely to extend down to Arrakan.

This small Warbler is spread over the Indo-Burmese countries, the whole peninsula of India, and the island of Ceylon.

Its habits and mode of nidification are precisely those of the preceding species.

Genus CISTICOLA, *Kaup*.

114. CISTICOLA CISTICOLA.

THE RUFOUS GRASS-WARBLER.

Sylvia cisticola, *Temm. Man. d'Orn.* i. p. 228; *id. Pl. Col.* 6. fig. 3. ***Prinia cursitans***, *Frankl. P. Z. S.* 1831, p. 118. ***Cisticola schoenicola***, *Bonap. Comp. List B. Eur. & N. Amer.* p. 12; *Jerd. B. Ind.* ii. p. 174; *Hume, Nests and Eggs*, p. 343; *id. S. F.* i. p. 439, iii. p. 137; *Bl. B. Burm.* p. 119; *Oates, S. F.* v. p. 158; *David et Oust. Ois. Chine*, p. 256. ***Salicaria (Cisticola) brunniceps***, *Temm. et Schl. Faun. Jap., Aves*, p. 134, pl. 20 c. ***Cisticola omalura***, *Bl. Cat. B. Mus. As. Soc. Beng.* p. 145; *id. J. A. S. B.* xx. p. 176. ***Calamanthella tinnabulans***, *Swinh. Journ. N. China As. Soc.* 1859, p. 225. ***Cisticola fuscicapilla***, *Wall. P. Z. S.* 1863, p. 489. ***Cisticola munipurensis***, *Godwin-Austen, P. Z. S.* 1874, p. 47; *id. J. A. S. B.* xliii. pt. ii. p. 165, pl. ix. fig. 2; *Hume, S. F.* iii. p. 397, viii. p. 101. ***Cisticola cursitans***, *Dresser, Birds Europe*, iii. p. 3, pl.; *Hume, S. F.* v. p. 90; *Hume & Dav. S. F.* vi. p. 349; *Hume, S. F.* viii. p. 101; *Legge, Birds Ceylon*, p. 531. ***Cisticola homalura***, *Hume, S. F.* v. pp. 93, 350, viii. p. 101.

Description.—*Male and female in winter.* The whole upper plumage bright rufous, each feather, except those of the rump and upper tail-

coverts, with a broad black streak; primaries and secondaries brown, edged with rufous on the outer webs; tertiaries black, with rufous edges to both webs; tail blackish brown, broadly tipped with white, and each feather, when viewed from below, with a deep black subterminal patch; sides of the head and an indistinct supercilium pale buff or pale rufous; entire lower plumage buffy white, tinged with bright ochraceous on the sides of the breast and body and on the thighs. *In summer* the rufous margins to the feathers are pale and nearly obsolete, and the stripes are brown, the whole head, neck and upper back thus presenting a nearly uniform brown appearance. The ochraceous tinge on the lower plumage is also much duller.

The *young* are more rufous than the adults, the black stripes on the upper plumage being narrower and the rufous edgings broader.

Iris light yellowish brown; bill flesh-coloured, dark along the culmen; legs and claws pinkish; mouth black in the breeding-season, dusky at other times.

Length 4·5 inches, tail 1·75, wing 1·9, tarsus ·8, bill from gape ·6; in summer the tail measures 1·5 inch in length, and the total length of the bird is correspondingly decreased. The female is not appreciably smaller than the male.

When Burmese examples of this species are compared with each other, they are found not to differ much. When, however, they are compared with birds from other countries, considerable variations are traced, chiefly in the markings of the upper plumage and of the tail. This is not the place to enter into an analysis of these variations; suffice it to say, that from China to Europe there appears to be but one species. The seasonal changes of plumage that this bird undergoes were not understood till very lately, and have given rise to many spurious species.

The Rufous Grass-Warbler is spread abundantly over every portion of British Burmah where there is grass- and paddy-land. Mr. Davison did not meet with it in Tenasserim further south than Tavoy; but probably this is due to the absence of suitable country in the southern parts of Tenasserim, for it is found in the Malay peninsula and some of the distant islands. It is a bird of immense range, being found throughout China up to Japan on the one hand and throughout the Indo-Burmese countries, India, and Western Asia to Southern Europe and the whole of Africa on the other.

This bird is met with wherever there is grass and cultivated lands. In most places where it is found it is very abundant, and throughout the rains it is impossible to overlook it. The male has the habit of flying up into the air, uttering all the time a sharp note. After it has risen to a height of twenty yards or so, it descends again into the grass. It is in great measure a ground-feeder, and may frequently be seen in great

numbers on roads and embankments which are overrun with grass. Its breeding-season extends over many months; and I have found the nest from May to November; it is a deep purse, beautifully made of vegetable down, and placed in a tuft of soft grass about a foot or so from the ground. The number of eggs is usually five, and they are white speckled with reddish.

115. CISTICOLA EXILIS.

THE GOLDEN-HEADED GRASS-WARBLER.

Malurus exilis, Vig. & Horsf. Trans. Linn. Soc. xv. p. 223. **Cisticola ruficeps**, Gould, P. Z. S. 1837, p. 150. **Cysticola lineocapilla**, Gould, P. Z. S. 1847, p. 1. **Cysticola isura**, Gould, P. Z. S. 1847, p. 32. **Cisticola erythrocephala** (Jerd.), Bl. J. A. S. B. xx. p. 523; Jerd. B. Ind. ii. p. 175; Hume, S. F. v. pp. 94, 351, 406, viii. p. 101. **Cisticola volitans**, Swinh. Journ. N. China As. Soc. 1859, p. 226; David et Oust. Ois. Chine, p. 256; Oates, S. F. x. p. 219. **Cisticola tytleri**, Jerd. B. Ind. ii. p. 176; Hume, S. F. v. pp. 93, 350, viii. p. 101. **Cisticola rustica**, Wallace, P. Z. S. 1863, p. 25. **Cisticola semirufa**, Cabanis, J. für Orn. 1866, p. 10. **Cisticola delicatula**, Bl. Ibis, 1870, p. 170. **Cisticola melanocephala**, Anders. P. Z. S. 1871, p. 212; Godw.-Aust. J. A. S. B. xliii. pt. ii. p. 165, pl. x. fig. 1; Hume S. F. v. pp. 93, 350; David et Oust. Ois. Chine, p. 257; Anders. Yunnan Exped. p. 641; Hume, S. F. viii. p. 101. **Cisticola ruficollis**, Wald. Ann. Nat. Hist. ser. 4, vii. p. 241. **Cisticola grayi**, Wald. Ann. Nat. Hist. ser. 4, ix. p. 400.

Description.—*Male in breeding-plumage.* Forehead and crown golden fulvous; nape and hind neck dusky fulvous; sides of the head paler fulvous than the crown; lower plumage pale yellowish buff; back and scapulars dark brown, each feather broadly edged with grey; wing-coverts and quills brown, edged with rufescent grey; rump and the upper tail-coverts fulvous; tail black, each feather narrowly tipped with ashy; centre of the abdomen and vent white.

In the female in breeding-plumage the head is streaked with dark brown, and the tips to the tail-feathers are about double the width they are in the male.

In winter plumage both sexes have much longer tails. The upper plumage is streaked with black and margined with rufous; the tail is rufous-grey, blackish along the shaft, each feather broadly tipped with rufescent white and with a subterminal black patch.

Iris light brown; upper mandible dark brown; lower mandible and gape fleshy pink; legs and claws flesh-colour.

In summer, length 4 inches, wing 1.75, tail 1.25, tarsus .7, bill from

gape '55 ; in winter, length about 4·8 inches, tail 2. The female is a little smaller than the male.

An examination of the large series of specimens in the British Museum carried out by Mr. Sharpe, Mr. Davison and myself, makes it clear that all the above-quoted names refer to one and the same species. We have not been able to examine *C. erythrocephala*, but there can be little doubt that it is the same bird. In this species not only are the sexes different in coloration, but the plumage is also different in summer and winter, and the length of the tail also varies according to season.

I met with these birds in Burmah only a short time before I left the country, and all the males I procured were in breeding-plumage. One of them, however, had a black feather on the head, and this at once gave me the key to the changes of plumage. Mr. Hume, I find, had already suspected that *C. tytleri* and *C. melanocephala* were different sexes of the same bird.

The Golden-headed Grass-Warbler occurs plentifully in the plain lying near the Pegu Canal, and also along the embankment running from Myitkyo to the Tonghoo road. It is not universally distributed over this plain, but occurs in a few places only.

It is found in the Indo-Burmese countries, Eastern Bengal and Western India. It extends into China, and has been found in the island of Formosa. Under various names it is recorded from numerous islands in the Malay archipelago, and it extends over Australia.

This Warbler has the same habits as the last species, rising into the air with a loud note, which, however, is different from that of *C. cisticola*, being more musical.

The breeding-season commences in May, on the 28th of which month I found two nests—beautiful little purses made of the softest and whitest vegetable fibres ; they were placed in clumps of short grass on the edge of a paddy-field about one foot from the ground. One nest contained four eggs, and the other one only two ; they are very similar in coloration to those of the preceding species.

116. CISTICOLA GRACILIS.

FRANKLIN'S GRASS-WARBLER.

Prinia gracilis, *Frankl. P. Z. S.* 1831, p. 119; *Jerd. B. Ind.* ii. p. 172; *Hume, Nests and Eggs*, p. 341; *Wald. in Bl. B. Burm.* p. 119; *Hume, S. F.* iii. p. 136; *Anders. Yunnan Exped.* p. 641; *Hume, S. F.* viii. p. 101; *Brooks, S. F.* viii. p. 476. **Prinia hodgsoni**, *Bl. J. A. S. B.* xiii. p. 376; *Jerd. B. Ind.* ii. p. 173; *Hume, Nests and Eggs*, p. 342; *Wald. in Bl. B. Burm.* p. 119; *Hume, S. F.* iii. p. 136; *Legge, S. F.* iii. p. 203; *Anders. Yunnan Exped.* p. 641; *Hume & Dav. S. F.* vi. p. 348; *Oates, S. F.* vii. p. 48; *Legge, Birds Ceylon*, p. 523; *Hume, S. F.* viii. p. 101. **Prinia albogularis**, *Wald. Ann. Nat. Hist.* ser. 4, v. p. 219; *id. Ibis*, 1871, p. 112. **Drymœca gracilis**, *Dresser, Birds Europe*, iii. p. 13, pl. **Prinia rufula**, *Godwin-Austen, P. Z. S.* 1874, p. 47; *id. J. A. S. B.* xliii. pt. ii. p. 165, pl. ix. fig. 1; *Hume, S. F.* iii. p. 397, viii. p. 101. **Cisticola gracilis**, *Sharpe, Cat. Birds B. Mus.* vii. p.

Description.—*Male and female. Summer plumage.* Upper plumage, wings and tail ashy grey, the wings edged with pale rufous, the tail with a subterminal patch of brown on each feather and tipped with whitish; ear-coverts whitish in front, greyish behind; cheeks, chin, throat, abdomen, vent and under tail-coverts white; breast ashy; under wing-coverts and axillaries white.

Winter plumage. Upper plumage and tail rufous-brown; the wings brown, broadly edged with rufous; the tail with subterminal dark patches and white tips; under plumage white, tinged with fulvous; a whitish line over the lores reaching to the eye.

Iris hazel-red; edges of eyelids orange; legs yellowish orange; claws horn-colour; bill dark brownish black; mouth black. After the breeding-season the mouth becomes flesh-colour and the edges of the eyelids change to plumbeous.

Length 4·2 inches, tail 1·8, wing 1·8, tarsus ·7, bill from gape ·55; in winter the tail is longer, measuring about 2·1 inches, and the total length of the bird is correspondingly increased.

This species has long been known under the two names of *C. gracilis* and *C. hodgsoni*. We are indebted to Mr. Brooks for the discovery that the former name refers to the bird in winter plumage, and the latter to it in the summer plumage. I have examined three specimens of *P. rufula* in Capt. Wardlaw Ramsay's collection; they appear to me to be the present species in rufous plumage, probably young birds, as one of them, the only one dated, was shot in July. The young of this and allied species assume the winter plumage as their first dress.

Franklin's Grass-Warbler occurs throughout Pegu and Arrakan. Mr. Davison met with in Tenasserim only on the Salween river; and Capt. Wardlaw Ramsay got it in Karennee.

It extends through the Indo-Burmese countries, and is found all over the peninsula of India and in the island of Ceylon.

This species is found in brushwood and the outskirts of woods and forests where there is a plentiful undergrowth of grass. I have always found it abundant in such localities. It breeds throughout the rains and in August I found a nest. The bird had sewn together two large leaves by the edges, and in the receptacle thus formed had made a pretty nest of fine grass. There were three eggs, pale blue spotted with reddish brown. The nest is generally placed about two feet from the ground.

117. CISTICOLA BEAVANI.

BEAVAN'S GRASS-WARBLER.

Prinia beavani, Wald. P. Z. S. 1866, p. 551; *id.* in Bl. B. Burm. p. 119; Hume, S. F. iii. p. 136; Oates, S. F. v. p. 158; Hume & Dav. S. F. vi. p. 349; Hume, S. F. viii. p. 101. *Prinia rufescens*, Bl. J. A. S. B. xvi. p. 456; Bl. & Wald. B. Burm. p. 119; Hume, S. F. iii. p. 136; Anders. Yunnan Exped. p. 640; Hume, S. F. viii. p. 101.

Description.—*Male and female. Summer plumage.* Lores brown; a streak from the nostrils over the eye white; forehead, crown and nape ashy brown; back, wing-coverts, scapulars, rump and upper tail-coverts rufous-brown; tail more rufous, tipped with white and each feather with a large subterminal spot of brown; wings brown edged with rufous-brown, and the tertiaries wholly of this colour; sides of the head ashy; lower plumage white washed with buff, brighter on the flanks.

Winter plumage. The forehead and crown become the same colour as the back, and the tail is much longer.

Iris reddish brown; bill horn-colour, pinkish at base; legs and claws pinkish; mouth flesh-colour.

Length in summer 4 inches, in winter 4·6; tail in summer 1·5, in winter 2·1; wing 1·65; tarsus ·75; bill from gape ·6. The female is rather smaller.

Prinia rufescens, Blyth, of which I procured specimens in the Arrakan hills, is nothing but the young bird of this species, characterized by a very rufous tinge of plumage; the head is the same colour as the back, like the adult in winter plumage.

Beavan's Grass-Warbler is found over every portion of Pegu and Tenasserim. Capt. Wardlaw Ramsay procured it on the Karin hills at 2000 feet elevation. I found it common at the foot of the Arrakan hills on the eastern side, and it is probably abundant over the whole of that Division.

It extends through the Indo-Burmese countries to the Bhootan Doars,

Sikhim and Nipal. It has also been procured at Klang in the Malay peninsula.

This Warbler is abundant in all well-wooded parts of the country where there is a fair undergrowth of grass. It is more abundant in thick forests than elsewhere. I have found the nest in June and July. Both the nest and eggs are similar to those of the preceding species.

Genus HOREITES, *Hodgs.*

118. HOREITES FORTIPES.

HODGSON'S HILL-WARBLER.

Horornis fortipes, *Hodgs. in Gray's Zool. Misc.* p. 82; *Jerd. B. Ind.* ii. p. 162; *Hume, Nests and Eggs*, p. 329; *Brooks, S. F.* viii. p. 475. **Drymoica brevicaudata**, *Bl. J. A. S. B.* xvi. p. 459. **Horornis assimilis**, *Gray, Cat. Mamm. etc. Nepal Coll. Hodgs.* p. 30; *Brooks, S. F.* x. p. 170. **Horeites robustipes**, *Swinh. Ibis*, 1866, p. 398; *Dav. et Oust. Ois. Chine*, p. 264. **Neornis assimilis**, *Bl. Ibis*, 1867, p. 22; *Godwin-Austen, J. A. S. B.* xliii. pt. ii. p. 167; *Wald. in Bl. B. Burm.* p. 105; *Hume & Dav. S. F.* vi. p. 351. **Neornis brevicaudatus**, *Anders. Yunnan Exped.* p. 623. **Schoenicola fortipes**, *Hume, S. F.* viii. p. 101. **Cettia fortipes**, *Seeböhm, Cat. Birds B. Mus.* v. p. 136.

Description.—*Male and female.* The whole upper plumage rich ruddy brown; the lores and ear-coverts rather darker; the inner webs of the wing-quills plain brown; eye-streak brownish yellow, rather indistinct; whole lower plumage buffish brown, richer on the flanks and vent and paling on the chin, throat and centre of abdomen; axillaries pale yellow.

Length 4·5 inches, tail 2·2, wing 2·2, tarsus ·85, bill from gape ·62.

This bird bears a close general resemblance to *Herbivocula fuscata* and *H. schwarzi*, but may be recognized by its rounded Timeliine wing and by its tail of ten feathers. *Horeites pallidus* and *H. brunnescens* appear to be distinct species, although Mr. Seeböhm treats them as synonyms of *H. fortipes*. (Cf. *S. F.* viii. pp. 379, 475.)

Hodgson's Hill-Warbler was procured in Karennee by Capt. Wardlaw Ramsay. It is not known to occur elsewhere in British Burmah.

Dr. Anderson met with it in the hills east of Bhamo, and Col. Godwin-Austen in the hill-tracts of Eastern Bengal. Mr. Hodgson procured it in Nipal, and it extends to China.

Nothing is on record about its habits. It is probably a resident species wherever it occurs.

119. HOREITES PALLIDIPES.

BLANFORD'S HILL-WARBLER.

Phylloscopus pallidipes, *Blanf. J. A. S. B.* xli. pt. ii. p. 162, pl. vii. **Horeites sericea**, *Wald. in Bl. B. Burm.* p. 119; *Tweedd. Ibis*, 1877, p. 487; *Hume, S. F.* v. p. 57. **Horeites pallidipes**, *Hume & Dav. S. F.* vi. p. 344; *Hume, S. F.* viii. p. 101. **Cettia pallidipes**, *Seeböhm, Cat. Birds B. Mus.* v. p. 139.

Description.—*Male and female.* Upper plumage, tail and wings olive-brown; a broad and distinct superciliary streak, reaching to the nape, greyish white; lores and a stripe over the ear-coverts dark brown; ear-coverts greyish white; whole lower plumage white, tinged with grey on the breast, flanks and under tail-coverts.

Iris dull brown; bill yellow; legs fleshy white. (*Wardlaw Ramsay.*)

Length 4 inches, tail 1·7, wing 2, tarsus ·75, bill from gape ·55.

This species may be distinguished from the last by its white lower plumage.

Blanford's Hill-Warbler was procured at Pahpoon in Tenasserim by Mr. Davison, and on the Karin hills, east of Tonghoo, by Capt. Wardlaw Ramsay.

Mr. Blanford first discovered it in Sikhim, and I cannot find any record of its occurrence elsewhere; but Mr. Seeböhm states that it is found in Assam, on what authority I do not know.

Nothing is known of the habits of this species. The *Horeites* group appear to be found at considerable elevations in brushwood on mountains, and to be non-migratory. Some species in the Himalayas are found near the snows and feed on the ground.

Genus SUYA, *Hodgs.*

120. SUYA CRINIGERA.

THE BROWN HILL-WARBLER.

Suya criniger, *Hodgs. As. Res.* xix. p. 183; *Jerd. B. Ind.* ii. p. 183. **Suya crinigera**, *Hume, Nests and Eggs*, p. 353; *Wald. in Bl. B. Burm.* p. 120; *Hume, S. F.* iii. p. 138; *Anders. Yunnan Exped.* p. 642; *Hume, S. F.* vii. p. 1, viii. p. 101; *Scully, S. F.* viii. p. 305. **Suya fuliginosa**, *Hodgs. in Gray's Zool. Misc.* p. 82; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 326; *Jerd. B. Ind.* ii. p. 184; *Hume, Nests and Eggs*, p. 355; *id. S. F.* viii. p. 101. **Prinia striata**, *Swinh. Journ. N. China As. Soc.* 1859, p. 227. **Suya obscura**, *Hume, S. F.* ii. p. 507, vii. p. 2. **Suya striata**, *David et Oust. Ois. Chine*, p. 258, pl. 18; *Hume, S. F.* vii. p. 1. **Suya parumstriata**, *David et Oust. Ois. Chine*, p. 259.

Description.—*Male and female in summer.* Upper plumage and wings dark brown, each feather edged with pale rufescent brown, the edges brighter on the upper tail-coverts and quills; tail brown, obsoletely barred across, each feather with a subterminal dark patch (conspicuous when seen from below) and a pale yellowish-white tip; lores and feathers about the eye very dark brown; ear-coverts brown with pale buff shaft-streaks; breast and sides of body blackish brown, each feather broadly tipped with fulvous; remainder of lower plumage fulvous, tinged with ferruginous on the flanks. Before the autumn moult the tips of the breast-feathers get so worn away that the breast appears to be entirely blackish. *After the autumn moult* and throughout the winter the fulvous portions of the breast-feathers are so long that very little of the inner dark colour is visible unless the feathers are disturbed; the margins to the feathers of the upper plumage are broader and more rufescent, and there is a line over the lores and eye, inconspicuous at the best of times, of pale creamy buff. Although this supercilium is, as a rule, absent in specimens shot in the summer, yet it exists occasionally in specimens shot even in June, in which month the bird should certainly be breeding and consequently be in typical summer plumage. These birds, however, may be the young.

Bill black, paler at the base of the lower mandible; iris reddish yellow; mouth black; eyelids plumbeous; legs yellowish; claws horn-colour. In the winter season the bill is brown above and pale yellowish below, and the mouth is probably flesh-coloured, not black.

Length 7·5 inches, tail 4·2, wing 2·25, tarsus ·9, bill from gape ·7. The female is smaller, the tail being 4 inches or less, and the wing about 2 or rather more.

I identify the Pegu bird with *S. crinigera* with considerable doubt. In all respects but one it agrees with the Himalayan bird. The one exception

lies in the colour of the breast-feathers. In *S. crinigera*, even in newly moulted birds, at least two-thirds of each feather are black; in the Pegu bird only the very smallest portion of the base is black, so little indeed that under no circumstances is any black visible without lifting the feathers. In this respect it agrees with *S. obscura* from Cashmeer.

S. fuliginosa is merely *S. crinigera* with the tips of the breast-feathers so worn away that the whole breast appears black. *S. striata*, Swinhoe, resembles the Pegu bird in having very little black on the breast.

The Brown Hill-Warbler occurs at Thayetmyo in Pegu, where I met with it on several occasions. It was not uncommon in the brushwood near the rifle-range north of the cantonment. It has not been obtained anywhere else in Burmah.

Dr. Anderson procured it near Bhamo and Col. Godwin-Austen in the Khasia hills. It inhabits the Himalayas from Assam to Afghanistan, and it extends into China and is even found in Formosa.

This bird is a resident species wherever it is found. It frequents brushwood and may occasionally be seen on low trees. It breeds in the Himalayas from May to July, constructing a cup-shaped nest of grass-down held together by fine grasses. The nest is usually placed in a low bush. The eggs are five to seven in number, white densely speckled with red.

121. SUYA SUPERCILIARIS.

ANDERSON'S HILL-WARBLER.

Suya superciliaris, *Anders. P. Z. S.* 1871, p. 212; *David et Oust. Ois. Chine*, p. 260; *Anders. Yunnan Exped.* p. 642, pl. li.; *Hume & Dav. S. F.* vi. p. 350; *Hume, S. F.* vii. p. 3, viii. p. 101. **Suya albogularis**, *Hume, S. F.* i. p. 459, ix. p. 227. **Suya erythropleura**, *Wald. in Bl. B. Burm.* p. 120; *Hume, S. F.* v. p. 58; *Hume & Dav. S. F.* vi. p. 351; *Hume, S. F.* viii. p. 101.

Description.—*Male and female* (April and June). Upper plumage and tail rufescent brown, the head browner; the rectrices tipped pale; a very distinct supercilium from the nostrils to the nape white; lores black; ear-coverts pale brown with whitish shaft-stripes; feathers above the ear-coverts dark brown; chin, throat, breast and abdomen white tinged with fulvous; sides of the body, vent, thighs and under tail-coverts ferruginous; wings brown edged with dark rufous.

Iris greenish brown; legs flesh-colour (*Wardlaw Ramsay*). Legs, feet, claws and lower mandible fleshy pink; upper mandible black; irides brownish yellow. (*Davison*.)

Length 7 inches, tail 4·5, wing 2, tarsus ·85, bill from gape ·65.

I have examined, with Mr. Sharpe, the two types of *S. erythropleura*, both males, shot in the Tonghoo hills by Captain Wardlaw Ramsay, and one bird of the species named *S. superciliaris* by Dr. Anderson killed by him in Yunnan. We find them identical. This species is very close to *S. atrigularis* and *S. khasiana*, but differs from them both in not assuming the black chin, throat and breast in the breeding-plumage. I base this assertion upon the evidence afforded by the Yunnan bird, which, though shot in June and evidently fully adult, is in the same plumage as the April bird described above.

Anderson's Hill-Warbler has been shot at Tonghoo by Capt. Wardlaw Ramsay, and was found by Mr. Davison on the higher parts of Mooleyit mountain in Tenasserim.

Dr. Anderson discovered this species on the confines of Western China; and Mr. Hume informs us that the Sumatran bird which he named *Suya albogularis* is identical with the present species.

Family PARIDÆ.

Subfamily PARINÆ.

Genus PARUS, *Linn.*

122. PARUS ATRICEPS.

THE INDIAN GREY TITMOUSE.

Parus atriceps, *Horsf. Trans. Linn. Soc.* xiii. p. 160; *Temm. Pl. Col.* 287. f. 2; *Legge, Birds Ceylon*, p. 557. **Parus cinereus**, *Vieill. Tabl. Enc. et Méthod.* ii. p. 506; *id. Nouv. Dict. d'Hist. Nat.* xx. p. 316; *Jerd. B. Ind.* ii. p. 278; *David et Oust. Ois. Chine*, p. 279. **Parus nipalensis**, *Hodgs. Ind. Rev.* 1838, p. 31; *Wald. in Bl. B. Burm.* p. 112; *Anders. Yunnan Exped.* p. 632; *Hume, S. F.* viii. p. 105; *Biddulph, Ibis*, 1881, p. 73. **Parus commixtus**, *Swinh. Ibis*, 1868, p. 63; *Wald. in Bl. B. Burm.* p. 111; *David et Oust. Ois. Chine*, p. 280; *Anders. Yunnan Exped.* p. 632; *Hume & Dav. S. F.* vi. p. 376; *Hume, S. F.* viii. p. 105. **Parus cæsius** (*Tick.*), *apud Hume, Nests and Eggs*, p. 405; *Armstrong, S. F.* iv. p. 330; *Hume & Dav. S. F.* vi. p. 376.

Description.—*Male and female.* Crown from the forehead to the nape, the chin, throat and a large patch on the breast extending down to the vent as a mesial abdominal stripe black; the black of the nape connected with that of the breast by broad bands on the sides of the neck; lower plumage pale rufescent ashy, the tail-coverts with a few brown streaks; upper plumage, lesser and median coverts ashy blue; greater coverts black

tipped with whitish; primary-coverts and quills blackish, edged on the outer webs with ashy blue; the edgings broader and more albescent on the tertiaries: outer tail-feathers white, except at the extreme base where they are brown; the next pair bluish on the outer web and terminally white; the inner web blackish with a broad white stripe; the next pair bluish on the outer web and blackish on the inner, with a white tip; the remaining feathers bluish on the outer webs and blackish on the inner, the bluish tint extending to the tips of the inner webs.

Bill black; iris brown; legs and feet plumbeous.

Length 5·5 inches, tail 2·6, wing 2·6, tarsus ·65, bill from gape ·5.

The Indian bird is said to differ from the Javan one, but I cannot discriminate them. Mr. Swinhoe says, "The Java bird, *P. cinereus*, Vieill. (*P. atriceps*, Horsf.), can be readily distinguished by the black of the head extending beyond the white nuchal spot, and separating it from the grey of the back." I have examined four birds from Java, four from Lombock, and two from Flores in the British Museum, and can find no grounds for this assertion. All birds from the Himalayas right down to the Malay archipelago are absolutely alike.

Some adults have traces of olive or green on the back, and young birds frequently have a great deal of it, showing how this species grades into *P. minor* through *P. commixtus*.

P. commixtus itself is not separable from specimens of *P. cinereus*. The three specimens in the Swinhoe collection, labelled by Mr. Swinhoe himself, exhibit such a very faint trace of olive on the back that the eye is scarcely drawn to it, and numerous other specimens from China are absolutely without this olive-green wash at all.

P. minor from Japan, ranging into N. China, is a good species, exhibiting a good deal of greenish yellow over the whole mantle.

The name of *P. atriceps* has priority over *P. cinereus* by two years or more.

The Indian Grey Titmouse is very unequally distributed over Pegu. I found it at Thayetmyo, and I again met with it west of the Irrawaddy towards the foot of the Arrakan hills, but I found it nowhere common. Dr. Armstrong states that it is abundant in open tidal jungle at the mouths of the Irrawaddy. It appears to be rare in Tenasserim, Mr. Davison meeting with it only at Thatone and in the pine-forests of the Salween. Capt. Wardlaw Ramsay procured it in Karennee at an elevation of 3000 feet. It is not recorded from Arrakan, but it probably occurs there.

Out of Burmah it has a most extensive range. It is found over all the Indo-Burmese countries, the southern portion of China, the whole peninsula of India up to Afghanistan and Cashmeer, and in the island of Ceylon. Southwards it is found in the islands of Java, Lombock and Flores.

This Titmouse is to be met with in all sorts of jungle, forest, brushwood,

gardens and orchards. The few I had the opportunity of observing had all the habits of the English Tits. They are resident birds and probably breed from March to June. In India they place their nests in holes of trees or walls. They lay from four to six eggs, which are white speckled with red.

Genus *ÆGITHALISCUS*, *Cabanis*.

123. *ÆGITHALISCUS ERYTHROCEPHALUS*.

THE RED-HEADED TITMOUSE.

Parus erythrocephalus, *Vigors*, *P. Z. S.* 1831, p. 23. *Ægithaliscus erythrocephalus*, *Jerd. B. Ind.* ii. p. 270; *Hume, Nests and Eggs*, p. 401; *Wald. in Bl. B. Burm.* p. 112; *Hume, S. F.* viii. p. 105; *Scully, S. F.* viii. p. 322.

Description.—*Male and female.* Head from forehead to nape chestnut; a short but broad supercilium white; lores, the ear-coverts, feathers round the eye and throat black; chin and a line separating the black of the throat from that of the sides of the head white; upper plumage and wing-coverts ashy blue, tinged with russet on the rump; wings brown, tinged with ashy on the outer webs; outer tail-feathers brown, the terminal two-thirds of the outer web and the tip of the inner white; the next two pairs brown, with large triangular white tips; the three central pairs ashy brown, lighter on the outer webs.

Bill black; gape fleshy; irides pale yellow or yellowish creamy; feet buffy yellow; claws livid. (*Scully*.)

Length 4·2 inches, tail 2·3, wing 2, tarsus ·62, bill from gape ·35.

The Red-headed Titmouse was obtained by Capt. Wardlaw Ramsay in Karennee at 3000 feet elevation. It has not been recorded from any other part of Burmah.

It is found in the Himalayas from Bhootan to the North-west Provinces. Col. Godwin-Austen obtained it in the Naga hills.

According to Dr. Jerdon this Titmouse associates in small flocks, frequenting shrubs, hedges and high trees, and lives chiefly on insects. It makes a large globular nest of moss and feathers, which is generally placed in a bush, and it lays as many as eight eggs, which are whitish, with a zone of reddish spots round the large end.

Genus MACHLOLOPHUS, *Cabanis*.

124. MACHLOLOPHUS SPILONOTUS.

THE BLACK-SPOTTED YELLOW TITMOUSE.

Parus spilonotus, *Bl. Cat. Birds Mus. As. Soc. Beng.* p. 103 *; *Jerd. B. Ind.* ii. p. 281; *Wald. in Bl. B. Burm.* p. 112; *Hume & Dav. S. F.* vi. p. 377; *Hume, S. F.* viii. p. 105. **Machlolophus subviridis** (*Tick.*), *Bl. J. A. S. B.* xxiv. p. 267; *Bl. & Wald. B. Burm.* p. 112.

Description.—*Male and female.* Summit of head and crest black, some of the hinder feathers tipped with yellow; forehead, supercilium, lores, cheeks, ear-coverts, sides of the neck and a large spot on the nape bright yellow; a line behind the eye and a large patch on either side of the yellow of the nape black; upper neck, back and scapulars yellow, each feather with a black streak on either edge of the webs; rump and upper tail-coverts plain greenish yellow; lesser wing-coverts black, tipped with slaty; median coverts black, tipped with white on both webs; greater coverts black, tipped with white on the outer web only; primary-coverts black; quills black, the first two plain, the next three edged with white; the secondaries and the remaining primaries edged on the outer web with slaty; tertiaries not edged, but broadly tipped with white, the secondaries more narrowly so; tail black, edged with slaty, except the outer pair of feathers, in which the whole outer web is white; all the feathers except the central ones tipped white; chin, throat, breast and a line down the abdomen black; sides of the breast bright yellow; remainder of lower plumage greenish yellow; the second to the eighth primaries with a patch of white near the base of the outer webs.

Legs and feet deep plumbeous blue; the claws similar; gape white; bill black; irides deep brown. (*Davison.*)

Length 5·5 inches, tail 2·4, wing 3·1, tarsus ·75, bill from gape ·65.

M. subviridis is, according to Mr. Hume, only the young of the present species.

The Black-spotted Yellow Titmouse was procured by Capt. Wardlaw Ramsay in Karennee at an elevation of 3500 feet. Mr. Davison met with it on Mooleyit mountain at the same elevation and upwards.

It is found in the hill-tracts of Eastern Bengal, in Sikhim and Nipal.

Mr. Davison observed that this Tit kept about the tops of the larger trees, especially those about the open camping-grounds, and that it went about in pairs.

* It is usual with authors to refer the reader to the 'Journal of the Asiatic Society of Bengal,' vol. xvi. p. 444, for this name. Mr. Blyth here gives the name of *P. aplonotus*, not *P. spilonotus*, to a Tit which is obviously the true *P. xanthogenys*. In his Catalogue (p. 103) he rectifies his mistake, and introduces *P. spilonotus* as a distinct species for the first time.

Genus MELANOCHLORA, *Less.*

125. MELANOCHLORA SULTANEA.

THE SULTAN YELLOW TITMOUSE.

Parus sultaneus, *Hodgs. Ind. Rev.* 1836, p. 31. **Parus flavocristatus**, *Lafresn. Mag. de Zool.* 1837, pl. 80. **Melanochlora sultanea**, *Jerd. B.-Ind.* ii. p. 282; *Hume, S. F.* iii. p. 143; *Hume & Dav. S. F.* vi. p. 378; *Anders. Yunnan Exped.* p. 632; *Hume, S. F.* viii. p. 105; *Scully, S. F.* viii. p. 324; *Bingham, S. F.* ix. p. 190. **Melanochlora flavicristata**, *Bl. & Wald. B. Burm.* p. 111.

Description.—*Male.* Forehead and crown with the crest brilliant yellow; the whole upper plumage, lores, sides of head and neck, chin, throat and breast deep glossy black; abdomen, vent, flanks, under wing- and tail-coverts deep yellow.

Female. The yellow parts duller than in the male; the sides of the head and upper plumage dark greenish brown, and the chin and throat yellowish brown; wings and tail dull black.

Bill black; mouth dark fleshy; eyelids plumbeous; iris dark brown; legs plumbeous; claws dark horn.

Length 8·2 inches, tail 3·8, wing 4·2, tarsus ·95, bill from gape ·7. The female is considerably smaller.

The Sultan Yellow Titmouse is abundant over the whole of the Pegu hills, but I have not observed it in the plains. Mr. Blyth received it from Arrakan. Mr. Davison found it throughout the whole Division of Tenasserim, except on the higher hills, and Capt. Wardlaw Ramsay procured it in Karennee.

Southwards it is found in the Malay peninsula and Sumatra. To the north Dr. Anderson procured it near Bhamo in Native Burmah. It occurs also in the hill-ranges of Eastern Bengal, and in Assam, Sikhim and Nipal.

I found these birds common on the Pegu hills. They were in pairs; and when any one approached the tree they were on, they raised their crests and uttered a succession of harsh notes. The nest has not yet been found; but Capt. Bingham observed two birds entering a hole in a tree in the Thoungyeen valley; and it is probable that, like other Tits, they will be found nesting in holes of trees.

I had not many opportunities of observing these birds, but Mr. Davison remarks that their habits are quite “those of the Tits. They cling in every conceivable position to the smaller branches, peering into every crack and under every leaf, clinging even to the trunks of trees, and hunting in a most systematic way for insects.”

Subfamily PARADOXORNITHINÆ.

Genus PARADOXORNIS, *Gould*.

126. PARADOXORNIS RUFICEPS.

THE RED-HEADED FINCH-THRUSH.

Paradoxornis ruficeps, *Bl. J. A. S. B.* xi. p. 177; *Jerd. B. Ind.* ii. p. 5; *Bl. B. Burm.* p. 117; *Hume & Dav. S. F.* vi. p. 257; *Hume, S. F.* viii. p. 95.

Description.—*Male and female.* Head, nape, upper back, lores, cheeks and ear-coverts chestnut; upper plumage, wings and tail olive-brown tinged with rufous; chin, throat and whole lower plumage white, tinged with brown on the flanks, vent, thighs and under tail-coverts.

Iris reddish brown; upper mandible brown; lower mandible flesh-colour; eyelids and mouth bluish; legs plumbeous; claws horn-colour.

Length 7·5 inches, tail 3·5, wing 3·5, tarsus 1·15, bill from gape ·6.

The Red-headed Finch-Thrush was procured in Karennee by Capt. Wardlaw Ramsay at an elevation of 2500 feet. Lieut. R. O. Lloyd, R.E., when on the Karennee Boundary Expedition, also obtained one specimen, which he kindly gave me. Mr. Davison observed it in Tenasserim on one occasion only at Pahpoon. Mr. Blyth received it from Arrakan, and there is a specimen from that Division in the Strickland Collection. Altogether it may be looked upon as a rare bird in Burmah.

It occurs in the hill-tracts of Eastern Bengal and along the Himalayas up to Nipal.

There are few birds about which so little is known as this, considering its tolerably extensive range. Mr. Davison remarks:—"I only met with this reed-bird on one occasion a couple of days' march north of Pahpoon. They consisted of a small party of five or six in a thick clump of kine grass and reeds, about and amongst which they were working much after the manner of *Timelia*." I may state here that this bird is structurally a Tit, though by many authors it is placed among the Finches.

Dr. Jerdon says:—"I have procured it both at Darjeeling and on the Khasia hills, and found it in dense bamboo-jungle feeding on the seeds which ripened this year (1862) over a large extent of the hills. Whilst feeding on the bamboos, in small parties, it did not shun observation, but on being followed soon concealed itself."

127. PARADOXORNIS GULARIS.

THE GREY-HEADED FINCH-THRUSH.

Paradoxornis gularis (*Horsf.*), *Gray & Mitch. Gen. Birds*, ii. p. 389, pl. 94. f. 2; *Jerd. B. Ind.* ii. p. 5; *Wald. in Bl. B. Burm.* p. 117; *Hume & Dav. S. F.* vi. p. 257; *Hume, S. F.* viii. p. 95.

Description.—*Male and female.* Forehead, chin and a streak running from immediately above the eye to the nape black; lores, the feathers round the eye and the cheeks whitish; whole top of the head and ear-coverts grey; whole upper plumage ruddy brown; wings and tail brown, edged on the outer webs with ruddy brown; lower plumage white.

Bill yellow; legs and feet plumbeous; the claws pale; irides light brown. (*Jerdon.*)

Bill dark yellow; legs slaty green. (*Godwin-Austen.*)

Length 6 inches, tail 3·2, wing 3·4, tarsus 1, bill from gape ·6.

The Grey-headed Finch-Thrush was obtained by Capt. Wardlaw Ramsay in Karennee at an elevation of 5600 feet. It is not known to occur elsewhere in Burmah.

It has been found in the hill-tracts of Eastern Bengal, Bhootan and Sikhim.

Less even is known of the present than of the preceding species. Dr. Jerdon states that in Sikhim it is found at from 3000 to 6000 feet elevation and that it is rare.

P. flavirostris and *P. austeni* are not unlikely to occur in Burmah. Both species have the ear-coverts black; but the first has the whole chin and throat black mottled with white, whereas the second has only the chin blackish.

Family SITTIDÆ.

Genus SITTA, *Linn.*

128. SITTA NEGLECTA.

THE BURMESE NUTHATCH.

Sitta neglecta, *Wald. Ann. Nat. Hist.* ser. 4, v. p. 218; *Hume, S. F.* iii. p. 87; *Bl. B. Burm.* p. 112; *Hume & Dav. S. F.* vi. p. 201; *Hume, S. F.* viii. p. 90; *Bingham, S. F.* ix. p. 171.

Description.—*Male.* Whole upper plumage, wing-coverts, outer webs of all the quills and the central tail-feathers slate-colour; inner webs of the

quills dark brown, the primaries with a patch of white at their bases; lores and a streak reaching to the nape black; chin, throat, cheeks and ear-coverts fulvous white; lower plumage chestnut, paler on the upper breast; three outer pairs of tail-feathers black at base, ashy towards the tip, with a subterminal spot of white on the inner web; the next two pairs slaty on the outer web and black on the inner, the tips of the latter being also slaty; under tail-coverts slate-colour, broadly tipped with white.

The *female* differs in being much paler beneath.

Iris brown; upper mandible bluish black, lower plumbeous; legs and feet dark plumbeous; claws horn-colour.

Length 5·5 inches, tail 1·7, wing 3·2, tarsus ·75, bill from gape ·9. The female is of the same size.

The Burmese Nuthatch is common in the plains of Pegu, but I did not observe it on the hills. The birds sent to Lord Walden on which he based his description were procured in the Karin hills of the Tonghoo district. Mr. Davison found it in the northern and central portions of Tenasserim as far south as the base of Mooleyit mountain. Capt. Bingham states that it is fairly common in the Thoungyeen valley, and Capt. Wardlaw Ramsay procured it in Karennee. It is not known as yet to occur in Arrakan.

This Nuthatch is only found in the dry forests, more especially in those which the Burmese term *Ingdein*. It is usually seen in pairs, and is always engaged in climbing the trunks and branches of trees, the bark of which it searches for insects. It appears to be able to traverse a branch in any direction and to descend head foremost with ease. The Nuthatches nest in holes of trees.

This species is close to *S. himalayensis*, which differs, however, in having a patch of white at the base of the central tail-feathers. From *S. castaneoventris* it may be distinguished by the colour of the under tail-coverts, which in that species are slate-coloured fringed with chestnut, without any white. It is also very close to *S. cinnamomeoventris*: in this, the under tail-coverts are slate-colour with a large subterminal spot of white and then a chestnut tip; in *S. neglecta* the chestnut tips are wanting. From both the last two named, *S. neglecta* may be moreover known by the absence of any pure white on the chin or cheeks. *S. nagaensis* appears to me to be the same as *S. neglecta*, but I have not been able to examine a specimen.

129. SITTA MAGNA.

THE GIANT NUTHATCH.

Sitta magna, *Wardlaw Ramsay*, *P. Z. S.* 1876, p. 677, pl. lxiii.; *Hume*, *S. F.* v. p. 343; *Wardlaw Ramsay*, *Ibis*, 1877, p. 465; *Hume & Dav.* *S. F.* vi. p. 201; *Hume*, *S. F.* viii. p. 90.

Description.—I append Capt. Wardlaw Ramsay's original description :—
“General colour above dark bluish slate-colour; a black stripe, a quarter of an inch broad, on either side of the head, running from the base of the bill over the eye to the shoulder; the upper part of the head and neck between these stripes smoky grey.

“Wings of much the same colour as the back. Primaries and secondaries dark brown, more or less edged on the outer web with bluish slate. The second, third, and fourth primaries are slightly margined with whitish on the outer web, and, with the fifth and sixth, are white at the base. Under surface of wing greyish brown, jet-black under the shoulder.

“Tail with two central tail-feathers concolorous with the back, remainder dark brown, almost black, outer pair broadly tipped with white on outer web, and margined with white on inner; next two broadly tipped with white on outer, and grey on inner web.

“Under surface of body smoky grey, nearly white about throat and neck.

“Lower tail-coverts, vent, and thighs brilliant chestnut, each feather of the former broadly tipped with white.

“Dimensions of dry skin (male*) :—Length 7·3 inches, wing 4·5, tail 2·7, bill from gape 1·3, bill at front 1, tarsus ·95.

“This Nuthatch is remarkable for its great size as compared with other members of the genus.”

This large Nuthatch was procured during Capt. Wardlaw Ramsay's journey from Tonghoo to Karennee, but the precise locality is not mentioned.

* Subsequently corrected to female.

130. SITTA FRONTALIS.

THE VELVET-FRONTED NUTHATCH.

Sitta frontalis, *Horsf. Trans. Linn. Soc.* xiii. p. 162. *Sitta corallina*, *Hodgs. J. A. S. B.* v. p. 779. *Dendrophila frontalis*, *Jerd. B. Ind.* i. p. 388; *Hume, Nests and Eggs*, p. 161; *Bl. & Wald. B. Burm.* p. 112; *Sharpe, S. F.* iii. p. 436; *Hume & Dav. S. F.* vi. p. 201; *Legge, Birds Ceylon*, p. 560; *Hume, S. F.* vii. p. 459, viii. p. 90; *Bingham, S. F.* ix. p. 171. *Dendrophila corallina*, *Hume, S. F.* iii. p. 89; *Anders. Yunnan Exped.* p. 633.

Description.—*Male.* A broad band on the forehead and a long supercilium black; the whole upper plumage and wing-coverts blue; wing blackish brown, edged on the outer webs with blue except on the first two primaries; the tertiaries almost entirely blue, the blue edging disappearing on the central primaries; central tail-feathers blue, the others blackish edged and tipped with bluish; ear-coverts lilac; chin and throat whitish; lower plumage greyish lilac.

The *female* differs in wanting the black supercilium.

Iris yellow; eyelids plumbeous; bill coral-red; mouth red; feet pinkish brown; claws pale horn. The young have the bill black, pinkish at the gape and nostrils; iris dark brown. In the young the bill is black and the iris brown.

Length 5 inches, tail 1·7, wing 2·9, tarsus ·7, bill from gape ·7. The female is probably smaller.

Mr. Sharpe maintains the Javan, Sumatran, and Bornean birds distinct from those inhabiting Burmah and India, on the grounds that the latter are larger, have a white throat and the under plumage less richly coloured. These differences do not seem to me to hold good. Horsfield's type from Java has the wing 2·75 inches; but another bird procured by Diard in the same island has the wing fully 2·9 inches, which is quite as long as the wings of birds from Burmah.

The under plumage is certainly richer-coloured in birds from Borneo and Java, and the throat is tinged with lilac, whereas Burmese birds have the throat albescent and the under plumage paler; but I do not think that, at the best, they can be considered any thing more than races. Some Burmese birds have indications of lilac on the throat.

The Velvet-fronted Nuthatch occurs over every portion of Pegu where there is thick forest; but it is commoner on the hills than elsewhere. Mr. Blyth states that it occurs in Arrakan. Mr. Davison found it common throughout Tenasserim, except at elevations above 5000 feet, and Capt. Bingham states that it is fairly common in the Thoungyeen valley. Capt. Wardlaw Ramsay observed it on the Tsankoo hills and in Karennee.

It is found throughout the Indo-Burmese countries, India and Ceylon.

To the south of Burmah it occurs in the Malay peninsula, Sumatra, Java and Borneo.

This beautiful Nuthatch is generally found in small companies, climbing trees and brushwood. They are able to run both up and down the perpendicular trunks of trees. They nest in small cavities in trees, and lay three or four eggs, which are white spotted with red and purple. Capt. Bingham found the nest in Tenasserim on the 18th of February, but the eggs had not yet been laid.

Family CERTHIIDÆ.

Genus CERTHIA, *Linn.*

131. CERTHIA DISCOLOR.

THE SIKHIM TREE-CREEPER.

Certhia discolor, *Bl. J. A. S. B.* xiv. p. 580; *Jerd. B. Ind.* i. p. 381; *Wald. in Bl. B. Burm.* p. 112; *Godw.-Aust. J. A. S. B.* xlv. pt. ii. p. 70; *Hume, S. F.* v. pp. 75, 78; *Hume & Dav. S. F.* vi. p. 200; *Hume, S. F.* viii. p. 90. *Certhia nipalensis* (*Hodgs.*), *apud Brooks, J. A. S. B.* xlii. pt. ii. p. 255; *id. S. F.* v. p. 74.

Description.—*Male and female.* Upper plumage fulvous, each feather edged with black, the margins broader on the head than elsewhere; rump and upper tail-coverts ferruginous; tail paler ferruginous; lesser and median wing-coverts blackish, with terminal fulvous drops; greater coverts blackish, with fulvous bases and with a fulvous spot at the tip of each outer web; primaries and secondaries brown inclining to black, all but the first four quills with a large patch of fulvous white across the middle and with a patch near the tip on the outer webs only; all the quills except the first four also tipped with fulvous white; tertiaries pale fulvous, with blackish blotches; lower plumage earthy brown, paler on the abdomen and sides; lower tail-coverts ferruginous.

Bill black above, ruddy beneath; legs horny. (*Godwin-Austen.*)

Length about 6 inches, tail 3·2, wing 2·7, tarsus ·6, bill from gape ·8, hind toe and claw ·75.

There are many species of Creepers found in India, one or more of which may eventually be found in Burmah. *C. himalayana* has the tail very strongly barred. *C. hodgsoni*, which is very doubtfully distinct from the European *C. familiaris*, has the tail about the same length as the wing and the under plumage white. *C. nipalensis* is similar in formation to

C. discolor, but the under plumage is white and the flanks ferruginous. *C. stoliczkæ* is a species allied to *C. nipalensis*, but differs in having the chin and throat fulvous and the breast buff.

The Sikhim Tree-Creeper was procured by Capt. Wardlaw Ramsay in Karennee at an elevation of from 5000 to 6000 feet.

Elsewhere it has only been met with in Sikhim, Nipal and the Dafla and Naga hills.

There is nothing on record about the habits of this particular Creeper. The Tree-Creepers climb about the trunks and branches of trees, searching the bark for insects. They nest in holes of trees and lay numerous eggs, which are white speckled with red. All the species known are constant residents in the countries they inhabit.

Family LIOTRICHIDÆ.

Genus COCHOA, *Hodgs.*

132. COCHOA PURPUREA.

THE PURPLE THRUSH-TIT.

Cochoa purpurea, *Hodgs. J. A. S. B.* v. p. 359; *Jerd. B. Ind.* ii. p. 243; *Hume, Nests and Eggs*, p. 388; *Hume & Dav. S. F.* vi. p. 367; *Hume, S. F.* viii. p. 104; *Sharpe, Cat. Birds B. Mus.* iv. p. 3.

Description.—*Male.* Crown of head and nape lavender-blue; back, scapulars, rump, upper tail-coverts and the lesser wing-coverts dull purple; tail bluish purple, with black tips and shafts; lores and sides of the head black; the whole lower plumage brownish purple; median and greater wing-coverts, the basal two thirds of the outer webs of the secondaries, and all the tertiaries bluish purple; terminal third of the outer webs and the entire inner webs of the secondaries black; the first two primaries all black, the other primaries and the primary-coverts black with the basal third of the outer webs lavender-blue.

The *female* has the crown, nape, sides of the head and the tail as in the male: with these exceptions, the whole plumage is reddish brown, except the terminal portions of the quills and the basal portions of the primaries and of the primary-coverts, which are exactly the same as in the male.

The *young* are somewhat like the female in colour, but the crown and nape are brown barred with white; the feathers of the back have lighter rufous centres, and the plumage below is barred with brown.

Legs and feet dark plumbeous, shaded with black ; claws dark horny brown ; bill black ; gape dark plumbeous ; iris red-brown ; eyelids dark plumbeous. (*Davison*.)

Length 10·5 inches, tail 4·2, wing 5·5, tarsus 1·1, bill from gape 1·2. The female appears to be of the same size.

This somewhat rare bird was procured by Mr. Davison on the higher slopes of Mooleyit mountain in Tenasserim, and Capt. Bingham found it in the Thoungyeen valley.

Out of Burmah it is known to occur only in the Himalayas, in Sikhim, Nipal and Kumaon.

Mr. Hodgson remarks of these birds :—"They are shy in their manners, adhere exclusively to the woods, live solitarily or in pairs, breed and moult but once a year, nidificate on trees, and feed almost equally on the ground and on trees. I have taken from their stomachs several sorts of stony berries, small univalve Mollusca and sundry kinds of aquatic insects."

The nest is said to be very solid, made of moss and lined with lichens and black roots, and to be cup-shaped ; it is placed on the bough of a tree. The eggs are said to be greenish thickly blotched with brown.

Genus PTERERYTHRIUS, *Swains*.*

133. PTERERYTHRIUS ÆRALATUS.

TICKELL'S SHRIKE-TIT.

Pteruthius æralatus, *Tick. J. A. S. B.* xxiv. p. 267 ; *Hume & Dav. S. F.* vi. p. 368 ; *Anders. Yunnan Exped.* p. 628, pl. xlvii. ; *Hume, S. F.* viii. p. 104. **Pterythrius æralatus**, *Bl. & Wald. B. Burm.* p. 109.

Description.—*Male*. The whole summit of head from the forehead to the nape, the lores, ear-coverts and feathers round the eye deep black ; a broad stripe from above the eye to the nape white ; back, rump, scapulars and upper tail-coverts grey, the latter margined with black ; chin, throat, cheeks, sides of neck, breast and flanks pale grey ; abdomen white tinged with vinous, as are also the feathers of the flanks covering the thighs ; vent and under tail-coverts white ; tail glossy black ; primaries black, all but the first three tipped with white ; secondaries all black ; tertiaries chestnut on the inner webs and the tips of the outer, golden yellow on the remainder of the outer webs ; wing-coverts black, the lesser ones marked with grey.

* *Conf. Strickl. Ann. Nat. Hist.* ser. 1, vii. p. 29.

Female. According to Mr. Hume, the stripe over and behind the eye is less marked and greyish white ; the lores are very pale grey ; the forehead and crown are pure clear grey, shaded on the occiput with olivaceous ; the entire back, scapulars and lesser wing-coverts pale greenish grey, faintly fulvous on the rump, and generally purer grey on the longest upper tail-coverts.

Legs and feet fleshy white ; claws pale brown to black ; lower mandible and basal edges of upper mandible along commissure pale blue ; rest of bill black ; irides varied considerably, slaty grey, pale greenish blue, and deep brown. (*Davison.*)

Length 6·7 inches, tail 2·3, wing 3, tarsus 1·05, bill from gape ·9. The female is quite as large.

This species is very close to *P. erythropterus* of the Himalayas, differing chiefly in having the tertiaries golden yellow on the outer webs. *P. rufiventer* is another species of large size, somewhat similar, but differing, among other points, in having the tail-feathers broadly tipped with chestnut.

Tickell's Shrike-Tit was first described from specimens obtained on the Tenasserim mountains by Col. Tickell at elevations from 3500 to 4500 feet. Capt. Wardlaw Ramsay procured it in Karennee from 4000 to 5000 feet elevation, and Mr. Davison rediscovered the bird in Tenasserim on Mooleyit mountain ; and it also probably occurs in the hills of Sumatra, as *P. cameranoi* seems hardly distinguishable.

Out of Burmah it is known to occur in the Kachyin hills east of Bhamo, on the borders of China, where Dr. Anderson observed it. One of his specimens is in the British Museum.

Mr. Davison says :—"I have only obtained this species in the forests of Mooleyit, where I found it usually in pairs, occasionally singly, hunting about the smaller branches and foliage for insects. It has a rather pleasant single note, which might be syllablized *toweech*, which it utters at short intervals, especially if there are two or more together. It is not shy, and I believe not uncommon ; but from always keeping among the thick foliage of the tree-tops (and I have never seen them elsewhere) they are seldom seen, and consequently seldom shot. If a pair happen to be together and one is shot, the other, after a very short interval, commences calling, flying from branch to branch and tree to tree looking for its mate."

134. PTERERYTHRIUS MELANOTIS.

HODGSON'S SHRIKE-TIT.

Pteruthius melanotis, *Hodgs. J. A. S. B.* xvi. p. 448. *Allotrius ænobarbus* (*Temm.*), *apud Jerd. B. Ind.* ii. p. 247. *Allotrius melanotis*, *Bl. B. Burm.* p. 109; *Hume, Nests and Eggs*, p. 390; *Hume & Dav. S. F.* vi. p. 369; *Hume, S. F.* vii. p. 456, viii. p. 104.

Description.—*Male.* Whole summit of head, back, scapulars, rump and upper tail-coverts greenish yellow; a ring of feathers round the eye white; a very narrow line from the nostrils over the eye and another broader one from the anterior corner of the eye, passing under the eye and over the ear-coverts and terminating in a patch at the rear of the ear-coverts, black; lores and a broad band from eye to eye, round the nape, clear ashy; ear-coverts yellow; chin and throat dusky chestnut; lower plumage bright yellow, suffused with chestnut on the breast; central tail-feathers green tipped with black; the next four pairs black tipped with white, the tips becoming broader from the centre to the outside of the tail; outermost tail-feathers wholly white; wings black, edged exteriorly with grey, and each quill, except the first few primaries, tipped with white; lesser wing-coverts black edged with grey; median and greater coverts black, broadly tipped with white.

The *female* has the tips to the median and greater wing-coverts salmon-coloured instead of white, and the chestnut on the throat is less intense and does not extend down to the breast.

The *young* have the upper plumage olive-brown; the grey band round the head and the black lines are wanting; the wing is the same colour as in the female, and the whole lower plumage is a pale yellowish white.

Bill plumbeous; legs fleshy white; irides light brown. (*Jerdon.*)*

Length 4·7 inches, tail 1·8, wing 2·5, tarsus ·8, bill from gape ·55.

Mr. Blyth states that he received this species from Tonghoo. Although the locality is termed Tonghoo, it is very probable that the specimen came from the higher hills to the east of that town. This species and the next were not likely to be confounded by a practised ornithologist like Mr. Blyth, as suggested by Mr. Hume. It is highly probable that *P. melanotis* does occur in the vicinity of Tonghoo, for, in another similar case of allied species, Capt. Wardlaw Ramsay procured *Digenea moniliger* in Karennee, and Mr. Davison the allied *D. submoniliger* in Tenasserim.

This Shrike-Tit has been found in the Himalayas from Bhootan to Nipal, and it also occurs in the Khasia hills.

Dr. Jerdon states that it associates in small flocks, is lively and hunts the extreme branches of trees. It appears to eat both fruit and insects.

* The colours of the soft parts may, however, be those of *P. xanthochloris*, with which Jerdon confounded *P. melanotis*.

The nest, according to Mr. Hodgson, is a shallow cup of moss and vegetable fibres suspended between the two branches of a fork; and the eggs are pinkish spotted with violet.

135. PTERERYTHRIUS INTERMEDIUS.

HUME'S SHRIKE-TIT.

Allotrius intermedius, *Hume*, *S. F.* v. p. 112; *Hume & Dav.* *S. F.* vi. p. 370; *Hume*, *S. F.* viii. p. 104.

Description.—*Male*. Similar to *P. melanotis* generally, but the forehead instead of being unicolorous with the crown is chestnut; the grey band round the nape is absent, as is also the black patch at the back of the ear-coverts.

The *female* and *young* probably differ from the male in the same manner as do the female and young of *P. melanotis* from the male of that species.

Lower mandible and edge of upper mandible pale blue, rest of upper mandible black; irides brown; legs, feet and claws fleshy. (*Davison*.)

Length 4·7 inches, tail 1·6, wing 2·45, tarsus ·75, bill from gape ·55.

A closely allied species is *P. ænobarbus*, Temm., from Java, in which the chestnut is confined to the chin and upper throat, and the grey eye-streak extends as far as the ear-coverts, but does not pass completely round them.

Another species from India is *P. xanthochloris*, of a dull greenish colour and with an ashy head. It has no marks on the wing-coverts.

Hume's Shrike-Tit was obtained on the higher slopes of Mooleyit in Tenasserim by Mr. Davison. It has not been procured elsewhere. Nothing is recorded of its habits.

Genus CUTIA, *Hodgs.*

136. CUTIA NIPALENSIS.

THE CHESTNUT-BACKED SHRIKE-TIT.

Cutia nipalensis, *Hodgs.* *J. A. S. B.* v. p. 774; *Jerd.* *B. Ind.* ii. p. 247; *Wald.* in *Bl. B. Burm.* p. 109; *Hume & Dav.* *S. F.* vi. p. 370; *Hume*, *S. F.* viii. p. 104.

Description.—*Male*. Lores, sides of forehead and a broad band passing through the eyes and ear-coverts quite round the nape black; the head inside this black band deep slaty; back, rump and upper tail-coverts bright chestnut; wing-coverts black; quills black, all but the first two with a patch of slaty on the outer web near the base, increasing in extent towards the body, and the third to the sixth or seventh primary with a narrow

edging of the same about the middle of the outer web, most of the later quills minutely tipped with white; tail black; lower plumage from chin to vent white, the flanks boldly barred with black; vent and under tail-coverts pale buff.

The *female* has the slaty colour of the head paler; the band round the head from the forehead to and inclusive of the ear-coverts is chocolate-brown; the back and scapulars are reddish brown with large oval black spots; the other parts are the same as in the male.

Bill blackish above, plumbeous beneath; legs orange-yellow; irides brown. (*Jerdon.*)

Length 7 inches, tail 2·5, wing 3·5, tarsus 1·1, bill from gape 1.

The Chestnut-backed Shrike-Tit was procured by Captain Wardlaw Ramsay in Karennee, at an altitude of 6000 feet.

It occurs in Bhootan and throughout the Himalayas. Colonel Godwin-Austen also observed it in the Dafla hills in Assam.

Dr. Jerdon says that this bird frequents very high trees in small flock, and lives both on fruits and insects. I can find nothing more recorded about it.

Genus LIOPTILA, *Blyth*.

137. LIOPTILA SATURATA.

THE BURMESE BLACK-HEADED SHRIKE-TIT.

Lioptila annectans, *apud* Wald. in *Bl. B. Burm.* p. 109. *Lioptila saturata*, Wald. *Ibis*, 1875, p. 352 (footnote); Wardlaw Ramsay, *Ibis*, 1877, p. 464; Hume & Dav. *S. F.* vi. p. 370; Wardlaw Ramsay, *Tweedd. Mem. App.* p. 667. *Leioptila davisoni*, Hume, *S. F.* v. p. 110.

Description.—*Male and female.* Head and nape, lores and sides of the head black; upper back black streaked with white; lower back, rump, scapulars and upper tail-coverts deep maroon; lesser and median wing-coverts black; greater coverts black tipped with maroon; quills black, all but the first two primaries edged externally with grey, and the tertiaries also tipped with greyish white; sides of neck black; chin, throat, breast and abdomen white; flanks, vent and under tail-coverts pale ferruginous; tail black, all but the two central pairs broadly tipped with white.

The upper and half the lower mandible black; rest of lower mandible, legs, feet and claws fleshy yellow; irides greyish brown. (*Davison.*)

Length 7 inches, tail 3·4, wing 3·1, tarsus ·95, bill from gape ·85. The female appears to be a trifle smaller.

The description is taken from the type of *L. saturata*. It differs from the Indian species in having the greater part of the back black, instead of

only a small portion immediately behind the neck. The rump and upper tail-coverts are also a much deeper maroon.

I have not been able to examine a specimen of *L. davisoni*. Mr. Hume identifies it with *L. saturata*, but it is described as having the rump and upper tail-coverts mingled black and maroon. Neither in *L. annectens* nor *L. saturata* is there any black on those parts.

The Burmese Black-headed Shrike-Tit was procured in Karennee by Capt. Wardlaw Ramsay between 5000 and 6000 feet elevation. Mr. Davison also got it on Mooleyit in Tenasserim, on the higher portions of the mountain. He says:—"I only found this bird at Mooleyit, quite near the top, usually in pairs, sometimes singly. I found it generally about the large trees surrounding the 'Sakans' or camping-grounds, strange to say climbing about the trunk and branches much after the manner of a Nut-hatch. I have also seen it hunting about the leaves and smaller branches of the tree-tops. Those I killed had eaten only insects."

Genus LIOTHRIX, *Swains.*

138. LIOTHRIX LUTEUS.

THE RED-BILLED HILL-TIT.

Sylvia lutea, Scop. *Del. Faun. et Flor. Insubr.* ii. p. 96. *Parus furcatus*, Temm. *Pl. Col.* 287. f. 1. *Bahila callipyga*, Hodgs. *Ind. Rev.* 1838, p. 88. *Leiothrix luteus*, Jerd. *B. Ind.* ii. p. 250. *Leiothrix callipyga*, Hume, *Nests and Eggs*, p. 390; *Anders. Yunnan Exped.* p. 629. *Liiothrix lutea*, Bl. *B. Burm.* p. 109; *David et Oust. Ois. Chine*, p. 214, pl. 67; *Hume, S. F.* viii. p. 104.

Description.—*Male.* The whole upper plumage olive-green, tinged with yellow on the forehead and occiput and with slaty on the back in some specimens; small median coverts olive-green; greater coverts olive-green on the outer webs and dull slaty on the inner; lores pale yellow, tinged with orange near the bill; ear-coverts silvery slaty; feathers round the eye more or less whitish; a moustachial streak from the bill to below the ear-coverts slaty; chin and throat deep yellow, tinged with orange and terminating in a bright orange gorget on the lower throat; breast and centre of abdomen greyish yellow; flanks slaty; under tail-coverts bright yellow; primaries dark brown, the first seven black on the outer web next the shaft and bordered with bright yellow tinged with red near the base; the next three primaries black on the outer webs and margined at the base and towards the tip also with flaming red; the first four secondaries black on the outer webs, with a patch of yellow near the base and an internal patch of greenish slaty increasing in size towards the body; the remaining

secondaries are nearly entirely greenish slaty on the outer web, the tips merely being black ; tertiaries greenish slaty, minutely tipped with black ; tail black, each feather partially slaty green ; under tail-coverts olive-green tipped with white.

The *female* has the orange gorget paler, and the flaming red on the wings is replaced by orange-yellow.

The *young* have the throat pale yellow, and they appear to assume the adult plumage almost as soon as they are fully fledged.

Bill coral-red ; legs fleshy brown ; irides brown. (*Jerdon*.)

Length 6 inches, tail 2·5, wing 2·9, tarsus 1·05, bill from gape ·65.

The Red-billed Hill-Tit is said by Mr. Blyth to occur in Arrakan.

It was procured by Dr. Anderson near Bhamo, and by Col. Godwin-Austen in the hill-tracts of Eastern Bengal. It extends into Southern China on one side, and on the other along the Himalayas up to the Sutlej river.

Dr. Jerdon says :—“ It usually associates in small parties of five or six, frequenting the dense thickets and underwood that springs up wherever the forest is partially cleared. It is a shy bird, and avoids observation in general. Its food consists of berries, fruits, seeds and insects. . . . Its usual note is a chattering call ; but in the spring the male has a very pleasing song.”

This Shrike-Tit makes a cup-shaped nest of dry leaves and moss bound together with grass and roots. It is generally placed in a leafy bush, at no great height from the ground. The number of eggs is usually three, and they are pale green, spotted and otherwise marked with red, purple and brown.

Genus MESIA, *Hodgs.*

139. MESIA ARGENTAUROS.

THE SILVER-EARED HILL-TIT.

Mesia argenteauris, *Hodgs. Ind. Rev.* 1838, p. 88 ; *Hume, Nests and Eggs*, p. 392 ; *Hume, S. F.* viii. p. 104 ; *Scully, S. F.* viii. p. 318. **Leiothrix argenteauris**, *Jerd. B. Ind.* ii. p. 251 ; *Anders. Yunnan Exped.* p. 630 ; *Hume & Dav. S. F.* vi. p. 370. **Liothrix argenteauris**, *Bl. B. Burm.* p. 109 ; *Wardlaw Ramsay, Ibis*, 1877, p. 464.

Description.—*Male and female.* Forehead golden yellow ; summit of head, lores, cheeks and a short stripe under the ear-coverts black ; ear-coverts silvery white ; chin and throat deep orange-yellow ; sides of the neck and upper back fulvous-yellow ; lower back, scapulars, tertiaries and wing-coverts slaty, some of the outermost of the latter edged with

greenish ; rump slaty green ; upper tail-coverts crimson ; quills slaty brown, the first two edged with yellow, the others edged with crimson at the base and yellow elsewhere ; tail blackish brown, the three outer pairs of feathers edged with yellowish ; lower plumage olive-yellow, brighter on the breast and abdomen ; under tail-coverts crimson.

The *young* differ in having the tail-coverts, both above and below, fulvous-yellow.

Bill ochre-yellow, slightly greenish at the base ; irides dark or reddish brown ; feet yellow-fleshy ; claws buff-horny. (*Scully*.)

Length 7 inches, tail 3, wing 3·1, tarsus 1, bill from gape ·75.

The Silver-eared Hill-Tit was obtained by Capt. Wardlaw Ramsay in the Tonghoo hills, and also in the Karennee hills, at altitudes of from 1500 to 4000 feet. Mr. Davison met with it on Mooleyit mountain in Tenasserim, and it has not been recorded from any other part of Burmah.

Dr. Anderson procured it near Bhamo, and Col. Godwin-Austen in the hill-tracts of Eastern Bengal ; and it extends along the Himalayas as far as Nipal.

Mr. Davison states that this Shrike-Tit is not uncommon on Mooleyit, going about in small parties and hunting in bushes and small trees for insects. Judging from what Mr. Hodgson and Dr. Jerdon write, the nest and eggs of this bird are similar to those of the preceding species.

Genus SIVA, *Hodgs.*

140. SIVA SORDIDA:

THE BURMESE BLUE-WINGED HILL-TIT.

Siva cyanouroptera (*Hodgs.*), *apud Bl. B. Burm.* p. 110. *Siva sordida*, *Hume*, *S. F.* v. p. 104 ; *Hume & Dav. S. F.* vi. p. 371 ; *Hume*, *S. F.* viii. p. 104.

Description.—*Male and female.* Forehead, crown and nape purplish brown ; back, rump, wing-coverts, scapulars and upper tail-coverts brown, tinged with rufous on the tail-coverts and rump ; the two central tail-feathers brown, washed with purple and very narrowly tipped with white ; the other feathers brown, more broadly tipped with white, the white increasing in extent outwardly and occupying nearly the whole inner web of the outermost feathers, the outer webs purplish ; primaries brown, the outer webs purplish ; secondaries brown, edged and tipped with white ; tertiaries brown on the inner, greyish on the outer webs ; winglet and primary-coverts black, edged with purplish ; lores and cheeks greyish white ; ear-coverts brown, with pale shafts ; entire lower plumage white, tinged with greyish ; lower aspect of tail white.

Lower mandible, legs, feet and claws whity brown; upper mandible darker, but still pale brown; irides creamy yellow. (*Davison*.)

Length 6 inches, tail 2·8, wing 2·5, tarsus ·9, bill from gape ·75.

This species is hardly more than a race of *S. cyanuroptera* of the Himalayas. It differs principally in wanting the white tip to the winglet, in having the upper plumage brown instead of ferruginous or reddish brown, and in not having the quills so richly coloured.

My description is taken from a specimen procured in Karennee by Capt. Wardlaw Ramsay. It appears to differ from Tenasserim specimens (judging from the descriptions only of these) in some particulars, and to be in many respects intermediate between *S. sordida* and *S. cyanuroptera*.

The Burmese Blue-winged Hill-Tit was obtained in Karennee by Capt. Wardlaw Ramsay, and in Tenasserim by Mr. Davison on the higher slopes of Mooleyit mountain.

Nothing is on record about the habits of this species. According to Dr. Jerdon, its ally, *S. cyanuroptera*, is "found in considerable flocks, with a hurried and lively manner, flying from tree to tree, alighting about the middle, and then hopping and climbing up to the topmost branches, hunting for minute insects with a lively chirrup." According to Mr. Hodgson, the nest of *S. cyanuroptera* is a large compact cup made of moss and leaves and lined with grass; it is placed in trees, at no great elevation from the ground. The eggs are either three or four, greenish spotted with brownish red.

141. SIVA CASTANEICAUDA.

THE BURMESE ORANGE-HEADED HILL-TIT.

Liothrix strigula, *apud* Wald. in *Bl. B. Burm.* p. 110; *Wardlaw Ramsay, Ibis*, 1877, p. 464. *Siva castanicauda*, *Hume, S. F.* v. p. 100. *Siva castaneicauda*, *Hume & Dav. S. F.* vi. p. 371; *Hume, S. F.* viii. p. 104.

Description.—*Male and female.* Head and crest orange-brown; upper plumage with wing-coverts and winglet slaty green; lores and feathers round the eye grey mottled with black; ear-coverts grey with white shafts; a broad but indistinct supercilium whitish; a long moustachial streak black; chin pale orange; throat pale yellow, each feather tipped with black; remainder of lower plumage yellow; primaries and secondaries dark brown, edged with yellow on the outer web; this margin tinged with orange-red at the base of the second primary and progressively more so inwards until the last secondaries have the margins wholly orange-red; the margins absent on the greater portion of the last three primaries; all the secondaries tipped white; tertiaries black on the inner web and at the

tip of the outer web, the remainder of the feather being grey; tail black, the four outer pairs of feathers broadly edged and tipped with yellow; the central two pairs merely tipped with yellow, and the inner webs maroon for about five sixths of their length from the base; the outer webs partially maroon near the webs.

Legs and feet dingy glaucous green; upper mandible dark brown, the lower fleshy; irides deep brown. (*Davison*.)

Length 6 inches, tail 3, wing 2·8, tarsus 1·05, bill from gape ·75. The female is probably of the same size.

This species differs from the Indian *S. strigula* in having more maroon on the central tail-feathers. In *S. strigula* the maroon is confined to the basal two thirds of the inner webs of the *two* central tail-feathers only; in *S. castaneicauda* the maroon occupies the greater portion of the inner webs of the *four* central pairs, extending to the outer webs of these as well.

I have examined Capt. Wardlaw Ramsay's specimens which were shot on Nat-toung, a high mountain in Karennee, about forty miles north-east of Shwaygheen at an elevation of 7000 feet, and find them to be *S. castaneicauda*. Mr. Davison obtained this bird on Mooleyit mountain, where it appears to have been rare. He says:—"I found this only on Mooleyit, and rare even there. It was usually met with singly on the outskirts of the forest among the trees dotted about the grass-land, hunting about like a true Tit amongst the leaves and branches. Its food consists of insects."

According to Mr. Hodgson's notes, the nest and eggs of this species appear to be very similar to those of *S. cyanuroptera*.

Genus MINLA, *Hodgs.*

142. MINLA CASTANEICEPS.

THE CHESTNUT-HEADED HILL-TIT.

Minla castaniceps, *Hodgs. Ind. Rev.* 1838, p. 33; *Jerd. B. Ind.* ii. p. 255. *Minla castaneiceps*, *Hume, Nests and Eggs*, p. 393; *Wald. in Bl. B. Burm.* p. 110; *Davison, S. F.* v. p. 459; *Hume & Dav. S. F.* vi. p. 372; *Hume, S. F.* viii. p. 104; *Scully, S. F.* viii. p. 320.

Description.—*Male and female.* Head and nape chestnut-brown, with whitish shaft-streaks; sides of neck, back, scapulars and rump fulvous-brown; tail and its upper coverts greyish brown; lores, the feathers above them and a broad streak over the eye to the nape white tinged with yellow; ear-coverts whitish, bordered above by a black line; a short, narrow

moustachial streak bordering the ear-coverts also black; chin, throat, breast and abdomen white tinged with fulvous; sides of breast, flanks and thighs ochraceous; wings dark brown, the second and third primaries edged with whitish on the outer webs near the bases, the others edged on the outer web with ferruginous, the secondaries and tertiaries edged with olive-brown; lesser and median coverts olive-brown, the greater coverts black.

The *young* are much the same colour as the adult, but the head-streaks are less distinct and the upper plumage more fulvous.

Upper mandible dusky; the lower livid, yellow at base; irides crimson; gape yellow; feet dingy greenish yellow; claws yellowish horny. (*Scully.*)

Length 4·3 inches, tail 1·8, wing 2·3, tarsus ·8, bill from gape ·55. The female is of the same size.

Other species of this genus are *M. ignotincta* from the Himalayas, with a black head and crimson margins to the wings and tail. *M. cinerea* from the same locality is greyish green, with two broad black coronal streaks and a yellow supercilium. *M. rufogularis* is allied to this last and is also from Sikhim.

The Chestnut-headed Hill-Tit was obtained in Karennee by Captain Wardlaw Ramsay at an elevation of 5200 feet. Mr. Davison found it on the higher slopes of Mooleyit mountain in Tenasserim.

It has been found in Munipore and the hill-tracts of Eastern Bengal, and it extends along the Himalayas up to Nipal.

Mr. Davison says:—"This little bird was common on the slopes of Mooleyit from 3500 feet and upwards, usually going about in flocks of twenty or more, and hunting in a systematic manner amongst the brush-wood and trees, generally commencing low down and gradually working upwards, clinging to the stems and trunks and peering into every crack and cranny, keeping up the whole time a low twittering."

According to Mr. Hodgson, the nest is a cup made of twigs, moss and grass, and it is placed in a thick bush. The eggs are four in number, greenish yellow speckled with red.

Mr. Davison found two nests of this species on Mooleyit mountain in February. In both cases the nests were constructed of green moss lined with fibres and dry leaves, and were cup-shaped. One nest was placed in a mass of creepers about five feet from the ground, and the other in the moss growing on the trunk of a large tree. The eggs were white minutely spotted with black, and three in number in each instance.

Genus *PROPARUS*, *Hodgs.*143. *PROPARUS DUBIUS*.

HUME'S HILL-TIT.

Proparus dubius, *Hume*, *Proc. A. S. B.* 1874, p. 107; *Hume*, *S. F.* ii: p. 447; *Wald.* in *Bl. B. Burm.* p. 110; *Davison*, *S. F.* v. p. 459; *Hume & Dav.* *S. F.* vi. pp. 372, 519; *Hume*, *S. F.* viii. p. 104.

Description.—I transcribe Mr. Hume's description of the male and female:—"The forehead is a clear pale rufous; the crown, occiput and nape a rich rufous olive-brown, each feather narrowly, *so* narrowly as to be barely perceptible, fringed with dark brown so as to impart a slightly scaly appearance; anterior portion of lores pale rufescent, paler and duller than the forehead; posterior portion of lores, ear-coverts and an indistinct ring round the eye brown; eyelid-feathers white; over the eye beginning half-way between the anterior angle and the upper margin a pure white streak runs backwards over the ear-coverts and a little further back; above this, but only commencing opposite the posterior angle of the eye, a velvet-black stripe runs backwards right to the base of the nape, where, although a little broken, it meets the corresponding stripe from the other side; the entire mantle, tertiaries, coverts and outer webs of secondaries and primaries (the inner webs are dark hair-brown) and tail a rich rufescent olive-brown, most rufescent on the wings and tail; the chin, throat, sides of the neck behind ear-coverts, breast, middle of abdomen and wing-lining uniform pale rufescent; tibial plumes darker; sides, flanks and lower tail-coverts somewhat rufescent olive-brown."

The legs, feet and claws are always fleshy, sometimes fleshy white, sometimes dark fleshy; the bill is dull black or dark brown, generally pale at the base of the lower mandible; the irides varied extremely, sometimes pale yellowish red, sometimes pale yellowish or sienna-brown; in one specimen dull slaty pink. (*Davison.*)

Length 5·6 inches, tail 2·4, wing 2·2, tarsus ·85, bill from gape ·6. The female appears to be rather smaller than the male.

I have not been able to examine a specimen of this bird, and it is difficult to judge from the description only what its nearest ally is.

Mr. Davison discovered this bird in the pine-forests of the Salween river north of Pahpoon, and he subsequently procured it again on Mooleyit mountain, where it was extremely common. He says:—"I found the bird common, generally in small parties, occasionally in pairs or singly, but these latter were probably breeding birds. They feed much on the ground and among the low brushwood, and entirely on insects. They are not by any means shy, and when alarmed utter a note that sounds like *chir chit, chit, chit*—*chir chit, chit, chit*, repeated continuously."

The nest of this bird, according to Mr. Davison, is a large globular

structure made of dry reed-leaves and lined with fibres. One nest that he found was placed on the ground; another was placed in a mass of creepers on a rock. In both instances the nests contained three eggs, which were white marked with dark brown or black and also with a little dull purple. The two nests were found in February on Mooleyit mountain.

Allied species are *P. chrysæus* with deep yellow edges to the wings, *P. mandellii* and *P. vinipectus*.

Genus IXULUS, *Hodgs.*

144. IXULUS HUMILIS.

DAVISON'S FLOWERPECKER.

Ixulus humilis, *Hume*, *S. F.* v. p. 106; *Hume & Dav.* *S. F.* vi. p. 374. *Staphidea humilis*, *Hume*, *S. F.* viii. p. 104.

Description.—I append Mr. Hume's description of the male :—"The forehead, crown, occiput and full broad occipital crest, back, entire visible portions of closed wings and tail, cheeks, ear-coverts, a nearly uniform brown; the upper tail-coverts similar, but with a slightly more olivaceous tinge.

"Lores and an obscure stripe on either side from the gape under the cheeks and ear-coverts a richer and darker brown.

"Chin, throat and sides of neck and entire lower surface of body silky white, everywhere (except on the middle of the abdomen) with longitudinal brown streaks, very narrow (as in *I. flavicollis*) on chin and throat and breast, broader on sides, flanks and lower abdomen, and occupying nearly the whole feather on lower tail-coverts.

"Tibial plumes brown.

"Wing-lining and inner margins of quills silky white."

Upper mandible black; lower mandible pale brown; legs and feet fleshy brown; irides red-brown. (*Davison.*)

Length 5·2 inches, tail 1·8, wing 2·5, tarsus ·8, bill from gape ·6. (*Davison.*)

I have not been able to examine a specimen of this species. The female probably resembles the male in coloration.

Other species from India are *I. occipitalis*, with a rufous head and white nuchal spot, and *I. flavicollis*, with a brown head and a broad rusty-yellow collar round the neck.

Mr. Davison procured this species on the highest parts of Mooleyit mountain, where he states that he met with it only once. He adds :—"It was hunting about the foliage near the top of a good-sized tree. I heard it utter no note. It had eaten only insects."

This bird, the tail of which Mr. Hume states is not graduated, cannot be placed in the genus *Staphida*, the chief character of which is the strong graduation of the tail.

Genus STAPHIDA, *Swinh.*

145. STAPHIDA STRIATA.

TICKELL'S FLOWERPECKER.

Ixulus striatus, *Bl. J. A. S. B.* xxviii. p. 413; *Hume, S. F.* v. p. 107; *Hume & Dav. S. F.* vi. p. 374. *Pycnonotus nanus*, *Tick. J. A. S. B.* xxviii. p. 452. *Staphidea striata*, *Bl. & Wald. B. Burm.* p. 110; *Hume, S. F.* viii. p. 104.

Description.—I transcribe Mr. Blyth's original description:—"Length about 5 inches, of closed wing $2\frac{3}{8}$ inches, and of tail the same; bill to gape $\frac{1}{2}$ inch and tarsi $\frac{5}{8}$ inch. Colour greyish brown above, each feather with a white mesial streak; below albescent throughout; outermost feather $\frac{3}{4}$ inch shorter than the middle pair, and largely tipped with white, as is also the antepenultimate, and next within gradually less so, the outer four feathers successively graduating."

Col. Tickell thus described the bird:—"Iris blood-red brown; bill dark horn; legs reddish horn; upper parts, including a blunt crest, ashy brown. Each feather shafted whitish. Remiges and centre pair of rectrices reddish clay-brown. Rest of tail dusky sepia, more and more tipped white externally; chin, throat and all underparts ashy white."

Dr. Jerdon united this species with a somewhat similar bird found on the Himalayas. Mr. Hume has made out a good case for their separation; and he has named the Himalayan bird *S. ruficeps*. Allied species are *S. castaneiceps* from the Khasia hills, *S. plumbeiceps* from Assam, and *S. torqueola* from China, all with graduated tails.

Tickell's Flowerpecker was discovered by Col. Tickell on Mooleyit mountain, at 3000 feet elevation, in 1859, and it has not since been found. The precise spot he procured it at is called Tretoungplee.

Genus YUHINA, *Hodgs.*

146. YUHINA GULARIS.

THE STRIPE-THROATED FLOWERPECKER.

Yuhina gularis, *Hodgs. As. Res.* xix. p. 166; *Jerd. B. Ind.* ii. p. 261; *Hume, Nests and Eggs*, p. 396; *Bl. B. Burm.* p. 110; *Hume, S. F.* viii. p. 104; *Scully, S. F.* viii. p. 321.

Description.—*Male and female.* Head and crest rich hair-brown; remainder of upper plumage, wing-coverts, tail and tertiaries olive-brown,

tinged with fulvous on the rump; lores, ear-coverts and cheeks grey; chin and throat pale rufescent, streaked with black; breast plain rufescent; remainder of lower plumage dull orange-brown, duller on the flanks; wings black, the third to the sixth primaries edged with pale grey on the terminal portion of the outer webs, the secondaries edged throughout their entire length with orange-brown.

Upper mandible black; lower mandible horny brown; irides brown or dark brown; feet deep buff or orange; claws dusky. (*Scully*.)

Length 5·8 inches, tail 2·3, wing 2·9, tarsus ·85, bill from gape ·75. The female is about the same size.

The Stripe-throated Flowerpecker is said by Mr. Blyth to occur in Arrakan. It has not been recorded from any other part of Burmah.

It is found in the Himalayas from Bhootan to Nipal, and will probably also be found in the Indo-Burmese countries. It occurs at elevations from 4000 feet upwards.

Dr. Jerdon remarks:—"It associates in large flocks, sometimes fifteen, twenty or more; these fly from tree to tree, alighting on the middle branches, and thence climbing sometimes over the mossy trunks and hopping from branch to branch they gain the summit, hunting all the while most carefully for small insects and larvæ."

According to Mr. Hodgson, this bird makes a globular nest of moss, which is wedged into a fork of a tree or between ledges of rock. The eggs are represented as being pale buff spotted with red.

Y. occipitalis has a spot of bright ferruginous on the nape, and wants the streaks on the throat. *Y. nigrimentum* has all the chin black, and the crest is black edged with grey.

Genus HERPORNIS, *Hodgs.*

147. HERPORNIS XANTHOLEUCA.

THE WHITE-BELLIED FLOWERPECKER.

Erpornis xantholeuca, *Hodgs. J. A. S. B.* xiii. p. 380; *Jerd. B. Ind.* ii. p. 264.

Erpornis xanthochlora, *Hodgs. P. Z. S.* 1845, p. 23; *Hume, S. F.* iii. p. 142.

Herpornis xantholeuca, *Bl. B. Burm.* p. 110; *Hume & Dav. S. F.* vi. p. 374;

Anders. Yunnan Exped. p. 630; *Hume, S. F.* viii. p. 104.

Description.—*Male and female.* The whole upper plumage, the tail, upper wing-coverts and tertiaries clear greenish yellow; primaries and secondaries brown, the outer webs of the same colour as the back; under tail-coverts bright yellow; lores, cheeks and the whole under plumage

white, slightly tinged with grey; ear-coverts ashy white; under wing-coverts pale yellow; the feathers of the crest slightly dark-shafted.

Upper mandible fleshy horn-colour, the edges and the whole lower mandible light flesh-colour; gape yellow; mouth yellow; eyelids plumbeous; iris brown; legs and claws pinkish flesh-colour.

Length 4·8 inches, tail 1·8, wing 2·65, tarsus ·7, bill from gape ·6. The female is rather smaller than the male.

The White-bellied Flowerpecker is found in all the forests of Pegu, alike in the hills and plains. Mr. Blyth states that it occurs in Arrakan. Mr. Davison found it distributed throughout the evergreen forests of Tenasserim; and Capt. Bingham says it is very common in the Thoungyeen valley, in the same Division.

It has been found in the Malay peninsula, at Tonka according to Mr. Hume, and at Malacca according to Mr. Blyth. It occurs in the Indo-Burmese countries, the hill-tracts of Eastern Bengal, Sikhim and Nipal.

This species affects forests, and does not occur in open country. I have generally found it in large companies, each flock scattered over several contiguous trees, the leaves of which the birds were searching for the minute insects on which they feed. They keep up a continuous twitter. I have never been able to find the nest; and I can find no information on the subject of their nidification.

Herpornis tyrannula is a closely allied form from Formosa and Hainan.

Family TROGLODYTIDÆ.

Genus PNOEPYGA, *Hodgs.*

148. PNOEPYGA ALBIVENTRIS.

THE SCALY-BREASTED HILL-WREN.

Tesia albiventer, *Hodgs. J. A. S. B.* vi. p. 102. **Microura squamata**, *Gould, Icon. Av.* pl. v. **Pnoepyga squamata**, *Jerd. B. Ind.* i. p. 488; *Wald. in Bl. B. Burm.* p. 99; *Godwin-Austen, J. A. S. B.* xxxix. pt. ii. p. 101; *David et Oust. Ois. Chine*, p. 227; *Hume & Dav. S. F.* vi. p. 234; *Hume, S. F.* viii. p. 93. **Pnoepyga albiventris**, *Sharpe, Cat. Birds B. Mus.* vi. p. 302.

Description.—Upper plumage and wing-coverts chocolate-brown, each feather tipped darker and with a spot of fulvous near the tip; ear-coverts

dark brown, with conspicuous light fulvous shaft-stripes; chin fulvous; lower plumage fulvous, with black centres to the feathers; wings brown, the outer webs and the tertiaries chiefly chocolate-brown.

In other birds the lower plumage is white, with black centres to the feathers. These two plumages may denote the two sexes; but I have not seen sexed specimens, and cannot consequently say whether it is the case or not. What appears to be a very young bird has the upper plumage uniform without any fulvous spots; and the lower plumage is uniform blackish brown.

Legs fleshy brown; bill dusky brown above, fleshy at the base beneath; irides brown. (*Jerdon.*) Bill pink-grey; irides dark brown. (*Godwin-Austen.*)

Length 4·5 inches, tail ·6, wing 2·35, tarsus ·1, bill from gape ·65.

The Scaly-breasted Hill-Wren was procured by Capt. Wardlaw Ramsay in Karennee at an elevation of 4000 feet.

It inhabits the hill-tracts of Eastern Bengal and the Himalayas as far as Simla.

Very little is known about this species. It only occurs at considerable elevations. Dr. Jerdon observes:—"From its habits it is not easily observed. I have seen it hunting under and on a fallen moss-clad tree, and now and then on a forest-path by the trunk of some large tree, to which it would cling for a few moments."

149. PNOEPYGA PUSILLA.

THE BROWN HILL-WREN.

Pnoepyga pusilla, *Hodgs. P. Z. S.* 1845, p. 25; *Jerd. B. Ind.* i. p. 489; *Hume & Dav. S. F.* vi. p. 234; *Hume, S. F.* viii. p. 93; *Sharpe, Cat. Birds B. Mus.* vi. p. 304.

Description.—Upper plumage dark brown, the feathers subterminally paler; wings brown, the coverts and tertiaries tipped with fulvous; lower plumage white with black centres to the feathers; flanks rufous-brown with fulvous edges.

Other specimens, instead of being white below, are fulvous; and, as in *P. albiventris*, this difference in coloration in the lower plumage may possibly denote the sex.

This species differs from *P. albiventris* chiefly in being smaller, and in wanting the fulvous spots on the upper plumage.

Legs and feet pale brown; upper mandible blackish, lower mandible pale brown; irides deep brown. (*Davison.*)

Length 3·5 inches, tail ·5, wing 2, tarsus ·8, bill from gape ·6.

The Brown Hill-Wren was obtained by Mr. Davison on the highest parts of Mooleyit mountain in Tenasserim.

It occurs in the hill-tracts of Eastern Bengal and in Nipal. It probably occurs in Sikhim; but I can find no record of its occurrence there. If *P. lepida* of Salvadori should, as Mr. Sharpe surmises, prove identical with the present species, its range will extend to Sumatra. These small Hill-Wrens are difficult to shoot and they are easily overlooked.

Mr. Davison remarks of this species:—"I always met with this in the dense fern-growth edging the mountain-streams in heavy forest, creeping in and out amongst the stalks of the ferns and little stones like a mouse. Usually I saw only one; sometimes two or three were together. As a rule they do not fly when disturbed, but scuttle away out of sight in the undergrowth; but when they do fly it is only for a few yards, and they always rise with a very sharp *chick, chick, chick*. Those I examined had fed exclusively on insects."

Family MOTACILLIDÆ.

Genus MOTACILLA, *Linn.*

150. MOTACILLA LEUCOPSIS.

THE BLACK-BACKED WAGTAIL.

Motacilla leucopsis, *Gould*, *P. Z. S.* 1837, p. 78; *Swinh.* *P. Z. S.* 1870, p. 121; *Brooks*, *S. F.* vii. p. 139; *Hume*, *S. F.* vii. p. 519, viii. p. 103; *Scully*, *S. F.* viii. p. 313; *Oates*, *S. F.* x. p. 224. **Motacilla alba**, var. **paradoxa**, *Schrenck*, *Reis. Amur-Lande*, *Vög.* p. 341, Taf. xi. fig. 2; *Swinh.* *P. Z. S.* 1871, p. 363; *David et Oust.* *Ois. Chine*, p. 299. **Motacilla luzoniensis**, *Jerd. B. Ind.* ii. p. 218; *Brooks*, *S. F.* ii. p. 457; *Bl. & Wald.* *B. Burm.* p. 96; *Wardlaw Ramsay*, *Ibis*, 1877, p. 462; *Hume & Dav.* *S. F.* vi. p. 362. **Motacilla felix**, *Swinh.* *P. Z. S.* 1870, p. 121; *Oates*, *S. F.* x. p. 224. **Motacilla alboides** (*Hodgs.*), *Swinh.* *P. Z. S.* 1871, p. 363; *David et Oust.* *Ois. Chine*, p. 298; *Seebohm*, *Ibis*, 1878, p. 346.

Description.—*Male and female in breeding-plumage.* Forehead, feathers over the eye, the sides of the head and of the neck pure white; the whole upper plumage, chin, throat and breast black; lower plumage white; the four central pairs of rectrices black narrowly edged with white; the next pair white with a streak of black on the edge of the inner web; the outer pair white with a still narrower streak of black on the inner web; smaller

wing-coverts black ; greater wing-coverts white with the centres of the feathers black ; primary-coverts and quills black, all margined with white.

In *winter* the black upper plumage turns to iron-grey, but there are almost always indications of black remaining, especially on the shoulder of the wing and on the back ; the white of the forehead is sullied with brown and frequently turns to the same iron-grey colour as the back ; the chin and throat turn to white and no black remains on the breast except a small circular or lunar-shaped patch.

The *young* are like the adults in winter plumage, but the white of the head is tinged with yellow.

Bill black, bluish below ; iris brown ; legs and claws dark brown or nearly black.

Length 7·7 inches, tail 3·6, wing 3·5, tarsus ·85, bill from gape ·75. The female is rather smaller than the male.

In Burmah the majority of these birds are obtained in winter plumage. Occasionally, however, even in January or February, a fully summer-plumaged bird is seen. I am now convinced that *M. felix* is only this species in summer plumage. In the females the back turns grey very soon after breeding is over and generally before they arrive in Burmah. The males retain some amount of black on the back and the shoulder throughout the winter. This species may, however, always be distinguished in winter from the next by the large amount of white on the greater wing-coverts. In *M. leucopsis* almost the whole of the outer webs is pure white, in *M. alba* merely the edges.

The Black-backed Wagtail is found abundantly over the whole of the plains of Pegu during the winter. They arrive about the middle of September and depart in April. Mr. Davison states that they are only found in the northern half of the Tenasserim Division, and he does not appear to have observed it further south than Moulmein. Capt. Bingham procured it in the Thoungyeen valley. It is probably a common bird in Arrakan.

This Wagtail is confined to the eastern parts of Asia. In winter it is found over the whole of Southern China, and Dr. Tiraut remarks that it is abundant in Cochin China. It extends over the Indo-Burmese countries and the north-eastern part of India including the Himalayas as far as Nipal. In summer it passes to Eastern Siberia and the Amoor, where Schrenck found it breeding. It apparently also breeds in North China, for Père David states, from his own observations, that it nests on roofs and in the neighbourhood of houses.

This Wagtail is one of the commonest birds of the country, and present everywhere in great numbers except in forest-land, which it apparently shuns. It frequents by choice the margins of ponds and rivers, but it is also seen on roads, dry fields, and even in compounds and gardens. It

seems unnecessary to say much regarding the habits of this common bird.

There are several species of Black-backed Wagtails. *M. maderaspatensis*, found in India, may be recognized by its large size and by its having the forehead black at all seasons. *M. japonica*, from China and Japan, may be known by its secondaries being nearly entirely white. Two other species have the secondaries nearly all grey; but *M. lugubris*, the European bird, has the cheeks and ear-coverts white, whereas *M. hodgsoni*, the Himalayan bird, has them black. One or more of them is likely to occur in Burmah.

151. MOTACILLA ALBA.

THE GREY-BACKED WAGTAIL.

Motacilla alba, *Linn. Syst. Nat.* i. p. 331; *Dresser, Birds Europe*, iii. p. 233, pl.; *Wardlaw Ramsay, Ibis*, 1877, p. 463; *Seebohm, Ibis*, 1878, p. 344; *Hume, S. F.* viii. p. 103; *Scully, S. F.* viii. p. 314. **Motacilla dukhunensis**, *Sykes, P. Z. S.* 1832, p. 91; *Swinh. P. Z. S.* 1870, p. 130; *Brooks, S. F.* ii. p. 457; *Wald. in Bl. B. Burm.* p. 97; *Hume & Dav. S. F.* vi. pp. 362, 518; *Brooks, S. F.* vii. p. 137; *Hume, S. F.* viii. p. 103. **Motacilla baicalensis**, *Swinh. P. Z. S.* 1871, p. 363; *David et Oust. Ois. Chine*, p. 301.

Description.—*Male and female in breeding-plumage.* Forehead, front of head, sides of the face and of the neck white; crown of head, nape, chin, throat and breast deep black; upper plumage a clear grey inclining to dusky on the upper tail-coverts; lower plumage white; the four central pairs of tail-feathers black narrowly margined with white; the next pair white with a broad streak of black on the inner web and a narrower one on the outer; the outer pair white with a narrow streak of black on the edge of the inner web; wings brown, the tertiaries and all the coverts margined with white.

In *winter* the crown of the head is unicolorous with the back, or mottled grey and black; the white forehead becomes greyish and the chin and throat turn white.

The *young* are coloured like the adult in winter plumage, but the white of the head is tinged with yellow.

The dimensions and the colours of the soft parts are similar to those of *M. leucopsis*.

The females lose the black on the crown of the head immediately after breeding, but the males retain it longer, and some few of them throughout the winter. The pectoral patch of black is much more extensive than in *M. leucopsis*, traces of the black of the throat being generally visible on the sides at all periods of the winter. The grey of the upper plumage is

very pure and perfectly free from even the slightest admixture of black. The greater wing-coverts are margined with white, and in the closed wing the amount of white on this part of the plumage is much less conspicuous than in *M. leucopsis*.

There has been much controversy as to whether *M. dukhunensis*, the bird found in India, is identical with *M. alba*, the bird found in Europe. It has been contended that the Indian birds have much more white on the wing than the European ones, and that they differ in some other minor points, such as the coloration of the young. After examining as many specimens from both continents as were accessible to me, I am of opinion that the two supposed races are identical, and that in the case of the majority of the birds it is impossible, without looking at the labels, to tell with certainty from which continent they have come. On the whole, perhaps, the Indian birds have whiter wing-coverts, but this is a character liable to much variation and consequently not of much value. A point insisted upon by Mr. Brooks, an advocate of the specific distinctness of the races, is that the young of *M. alba* are yellowish about the head, whereas the young of *M. dukhunensis* never have this yellow tinge. A great proportion, however, of the birds of this species that are obtained in Burmah have the yellow tinge well developed on the head, and I can attach no importance to this diagnostic point.

The Grey-backed Wagtail is sparingly distributed over Pegu during the cold weather, and is much rarer than the preceding species. Mr. Davison found it in Tenasserim as far south as Moulmein. Capt. Wardlaw Ramsay procured it in Karennee. It is probably spread over Arrakan.

In winter it is distributed over a large area. It occurs over the whole of India, South-western Asia, Southern Europe and North Africa. It also appears to be found pretty abundantly in China and Cochin China. In summer it passes to Central and Northern Europe and to Northern Asia, but very little is known about its distribution in this latter continent. Mr. Seebohm found it on the Yenesay river as far north as latitude $71\frac{1}{2}^{\circ}$. He observes:—"The geographical distribution of this bird is very curious. As Middendorff did not find it, we may take the watershed between the Yenesay and the Layna as its eastern boundary, whence it extends westwards as far as the Atlantic on the continent of Europe, but only appears accidentally in the British Isles. As you ascend the Yenesay from the Arctic Circle this bird abounds on the banks of the rivers until you near Yenesaisk (about lat. 59°), when it suddenly disappears, and its place is taken by *M. personata*. From Yenesaisk to Krasnoyarsk and westwards until you cross the meridian of Calcutta, *M. personata* abounds, after which, across Siberia and Europe, you find no white Wagtail but *M. alba*."

In habits this species is very similar to *M. leucopsis*, frequenting the

same kind of localities, viz. the edges of ponds and streams and bare fields, roads and compounds. I have met with it in Burmah from the 16th September to the 20th April.

The only other species of Wagtail of this section with the back permanently grey is *M. personata*, and this may be recognized by the sides of the head being black.

152. MOTACILLA OCULARIS.

SWINHOE'S WAGTAIL.

Motacilla ocularis, *Swinh. Ibis*, 1860, p. 55; *id. P. Z. S.* 1870, p. 129, 1871, p. 364; *David et Oust. Ois. Chine*, p. 299; *Seebohm, Ibis*, 1878, p. 345; *Hume & Dav. S. F.* vi. p. 518; *Hume, S. F.* viii. p. 103; *Scully, S. F.* viii. p. 315; *Oates, S. F.* x. p. 225.

Description.—*Male and female in breeding-plumage.* Forehead and crown as far back as the eyes, the face and sides of neck pure white; remainder of the crown and nape, and a streak extending from the angle of the bill through the eye and over the ear-coverts to the nape, black; lower surface from the chin to the lower breast black; remainder of lower plumage white; back, rump and tail-coverts, and also the smaller wing-coverts, pure grey; larger wing-coverts, secondaries and tertiaries brown, margined on the outer webs with white; primaries brown, edged with white interiorly; tail black, with the exception of the two outer pairs of rectrices, which are white, with a linear patch of black on the edge of the inner webs.

In winter the black on the head becomes mixed with grey, and in some cases the head is nearly entirely grey; the chin and throat become white, and the black on the breast becomes crescentic in shape, spreading narrowly up the sides of the neck to the ear-coverts.

The *young* have the margins to the wing-coverts and tertiaries narrower, and the forehead, instead of being white, is grey; the whole head is suffused with a yellow tinge, and the grey of the upper plumage is much less pure white than in the adult; the black eye-streak is well developed from the first.

Bill black, plumbeous at the base; iris brown; legs and claws black.

Length 8 inches, tail 4, wing 3·85, tarsus ·94, bill from gape ·8. The female is slightly smaller.

The breeding-plumage is lost in October and resumed in April. During the winter months the amount of black on the head and on the throat and breast varies very much. The black streak through the eye is constant at all seasons. In winter the ear-coverts are generally dashed with dusky.

Swinhoe's Wagtail is very abundant in Pegu from the commencement

of November to the end of April. I have observed it to be most common on the banks of the Pegu Canal and in the Sittang river, and it extends down to Rangoon and up to Tonghoo. Mr. Davison procured it abundantly at Moulmein, and he also found it further north. Capt. Bingham got it in the Thoungyeen valley.

In winter this Wagtail is found, according to Dr. Tiraud, in Cochin China. It is also found in China, Formosa and Hainan. It has been obtained as a straggler in Cachar and Nipal. In summer it passes into Mongolia and Eastern Siberia, and is probably found as far west as the Yenesay river.

Swinhoe's Wagtail has much the same habits as the common black-backed species; but it is never found far from water. It is a very elegant bird, and soon becomes familiar. Both at Myitkyo and at Kyeikpadein, where the bungalows are close to the banks of the canal, a pair of these birds was generally to be seen in the compound, keeping, as a rule, to the cleaner portions of the grounds, and occasionally coming into the verandah or perching on the rails of the house.

There are two other species of Wagtails with a black streak through the eye. Both of these always have the back black, or grey mottled with black. The first, *M. blakistoni* from Japan, recently described by Mr. Seebohm, has the shoulder black and the secondaries nearly all white; whereas the second species, *M. amurensis*, has the shoulder grey and the secondaries nearly all grey.

Genus CALOBATES, *Kaup*.

153. CALOBATES MELANOPE.

THE EASTERN GREY WAGTAIL.

Motacilla melanope, *Pall. Reis. Russ. Reichs*, iii. p. 696; *Legge, Birds Ceylon*, p. 610. **Motacilla bistrigata**, *Raffl. Trans. Linn. Soc.* xiii. p. 312. **Calobates sulphurea** (*Bechst.*), *apud Jerd. B. Ind.* ii. p. 220. **Calobates bistrigata**, *Salvad. Ucc. Born.* p. 259. **Calobates boarula** (*Gm.*), *apud Hume, Nests and Eggs*, p. 381; *id. S. F.* ii. p. 237. **Motacilla boarula**, *Bl. & Wald. B. Burm.* p. 97. **Calobates melanope**, *David et Oust. Ois. Chine*, p. 302; *Hume, S. F.* viii. p. 103; *Scully, S. F.* viii. p. 315; *Biddulph, Ibis*, 1881, p. 68.

Description.—*Male in breeding-plumage.* Head, ear-coverts, neck, back and scapulars dark grey, with a tinge of olive on the back; rump and upper tail-coverts sulphur-yellow, tinged with olive; a short streak from the eye over the ear-coverts and a moustachial stripe white; chin, lores and throat black; the whole lower plumage bright yellow, tinged with brown on the sides of the breast; the three middle pairs of tail-feathers

black, slightly edged with yellow on the outer webs; the next two pairs black on the outer webs and white on the inner; the outer pair all white; wing-coverts dark brown, edged paler; quills dark brown, the tertiaries broadly edged with yellowish white.

The *female in summer*, according to Major Biddulph, has, instead of a black throat, an interrupted streak of dusky spots on each side from the base of the lower mandible.

Both sexes in winter have the chin and throat pure white; the whole upper plumage, except the rump and tail-coverts, is a light grey, tinged with green or slaty; the supercilium is produced forward over the lores, and the ear-coverts and sides of the neck are grey, of the same tint as the head. There are no other differences.

Young birds do not differ much; at first the lower plumage is buffy brown, with spots on the sides of the throat, and the plumage of the adult appears to be acquired during the first autumn.

Bill horn-colour, paler at the base of the lower mandible; iris brown; legs flesh-colour.

Length 7·5 inches, tail 3·7, wing 3·2, tarsus ·75, bill from gape ·7, hind toe and claw ·5.

The Eastern species (*C. melanope*) differs from the Western (*C. boarula*) in having a tail fully a quarter of an inch shorter. This appears to be a constant character. There appear to be differences also in colour; but I have not been able to institute a thorough comparison with respect to this.

The Eastern Grey Wagtail is found over the whole of British Burmah in the winter, and it is tolerably abundant everywhere.

In the winter months it has a very wide distribution. It occurs all over the peninsula of India and Ceylon, the Indo-Burmese countries, China, the Malay peninsula, Sumatra, Java and Borneo. In summer it is found in Cashmeer and in Central Asia and Siberia, extending about as far as the Arctic circle.

This Wagtail frequents much the same kind of places as the *Budytes* group, but is perhaps more usually found near water. It occurs both in flocks and singly. Mr. Brooks found the nest in Cashmeer. One nest was placed in a bush and another under a boulder in the dry bed of a river. The materials used in the construction of the nest were moss and fibres, and the structure was lined with hair. The eggs appear to be yellowish white, mottled with yellowish brown.

Genus BUDYTES, *Cuvier*.

154. BUDYTES VIRIDIS.

THE GREY-HEADED WAGTAIL.

Motacilla viridis, *Gm. Syst. Nat.* i. p. 962; *Dresser, Birds Eur.* iii. p. 269, pl. **Motacilla cinereocapilla**, *Savi, Nuovo Giorn. d. Lett.* p. 190. **Budytes viridis**, *Jerd. B. Ind.* ii. p. 222; *Salvad. Ucc. Born.* p. 260; *Bl. B. Burm.* p. 96; *Anders. Yunnan Exped.* p. 608; *Legge, Birds Ceylon*, p. 617. **Budytes cinereocapillus**, *Salvad. Ucc. Born.* p. 261; *Brooks, J. A. S. B.* xliii. pt. ii. p. 249; *David et Oust. Ois. Chine*, p. 303; *Hume & Dav. S. F.* vi. p. 363; *Hume, S. F.* viii. p. 103; *Oates, S. F.* x. p. 226.

Description.—*Male and female in breeding-plumage.* Whole head from the bill to the nape deep slaty; lores and ear-coverts nearly black; a narrow indistinct line of white over the lores; a short streak of white occasionally behind the eye, frequently absent; upper plumage dull greenish yellow; upper tail-coverts brown, margined with yellowish; lesser wing-coverts brown, margined with yellowish; median and greater coverts brownish black, edged and margined with yellowish white; quills brown, the secondaries and tertiaries margined with yellowish white on the outer webs; four central pairs of tail-feathers black; the two outer pairs black at base and white on the terminal portion, the junction being oblique; chin white; the whole lower plumage bright yellow, a little dusky on the lower throat.

In winter the head becomes greenish yellowish like the back, and the ear-coverts also turn yellowish; the yellow on the lower parts is much duller, and the eye-streak becomes distinct.

Young birds are greenish brown or brown above, and more or less fulvous or white below, with spots on the throat and breast.

Bill blackish brown, the base of the lower mandible yellowish; iris brown; legs, feet and claws dark horn-colour.

Length 7 inches, tail 3·1, wing 3·2, tarsus ·9, bill from gape ·7, hind toe and claw ·7 to ·9. The female is of about the same size.

In breeding-plumage this species is easily recognized by its deep slaty head, blackish ear-coverts, and by the absence of any distinct white supercilium. In winter plumage, unless they retain some traces of the above-noted characteristics, they are hardly distinguishable from other allied species.

The Grey-headed Wagtail is abundantly distributed in the winter over the plains of Arrakan and Pegu. Mr. Davison found it only in the northern and central portions of Tenasserim, as far south as Tavoy. This must, however, have been due to accident, as this Wagtail occurs as far south as the Malay peninsula. Capt. Wardlaw Ramsay procured it in Karennee at 3000 feet elevation.

This species has the usual wide range of migratory birds common to both Europe and Asia. In winter it is found all over Southern Asia as far as Borneo and Singapore, and also in Europe and North Africa. In summer it migrates to Northern Europe and Asia.

This Wagtail, which is extremely numerous wherever it occurs, is usually found in swampy lands and grassy fields. After the water in the swamps has dried up, it may be found abundantly in dry paddy-fields. It is one of the most graceful of the Wagtails. In Europe it places its nest on the ground, under shelter of a tussock or on the side of a ditch. The nest is made of fine roots, straw and moss, and lined with horsehair and wool. The eggs, usually four or five in number, are white, spotted and otherwise marked with grey.

155. BUDYTES FLAVUS.

THE BLUE-HEADED WAGTAIL.

Motacilla flava, Linn. *Syst. Nat.* i. p. 331; *Dresser, Birds Eur.* iii. p. 261, pl. **Budytes dubius**, *Hodgs. in Gray's Zool. Misc.* p. 83; *Brooks, S. F.* vii. p. 139. **Budytes beema**, *Sykes, P. Z. S.* 1832, p. 90; *Hume, S. F.* ix. p. 334 (footnote), x. p. 227 (footnote). **Budytes flavus**, *David et Oust. Ois. Chine*, p. 302; *Armstrong, S. F.* iv. p. 329; *Hume & Dav. S. F.* vi. p. 364; *Hume, S. F.* viii. p. 103.

Description.—*Male and female in breeding-plumage.* Very similar in general coloration to *B. viridis* in breeding-plumage. They differ in having the grey of the head much paler, the ear-coverts grey streaked with white instead of being blackish, and in having a broad distinct supercilium extending from the bill to the nape.

In winter plumage they can be distinguished with difficulty from the last, unless some traces of the characters above noted are present. As a rule the supercilium exists in some degree or other, and by this the birds may generally be recognized.

B. melanocephalus, which occurs in India, has a pure black head in the breeding-season, but at other times is not easily separated from *B. viridis* and *B. flavus*. Another species from China, *B. taivanus*, is very likely to be found in Burmah. In the breeding-season it has a long, distinct, deep-yellow supercilium, and in winter the yellow tinge on this part appears to be retained to a sufficient extent to render the bird always recognizable.

All these Wagtails, however, vary very much in plumage in the winter, and many birds shot at this season cannot be identified with perfect certainty. It is therefore advisable to shoot and preserve them in the autumn and spring, when nearly all the specimens will be found to have vestiges of the summer- or breeding-plumage.

Mr. Brooks urges that the Eastern and Western forms of the Blue-headed Wagtail are distinct. He says that in the latter the head is darker grey, and there is an amount of very dark grey on the cheeks mixed with a small white streak or two, whereas in the former or Eastern race the cheeks are pale grey mixed with a great deal of pure white, and the crown is always of a pure light grey when in full plumage. I have, however, examined a large series of specimens from Europe and India, and, while admitting that the above distinctions hold good in many instances, they do not in all, and I therefore cannot agree with Mr. Brooks in keeping them separate.

The Blue-headed Wagtail occurs very sparingly in Pegu in winter. Dr. Armstrong procured two specimens from the Rangoon river, and Mr. Hume mentions having received it from near Rangoon and from Bassein. I have never met with it, although I have paid special attention to the Wagtails for some years. It must, consequently, be looked upon as rare. Mr. Davison procured it in Tenasserim from Amherst down to Bankasoon. It probably occurs also in Arrakan.

In winter it is widely distributed, being found throughout Southern Asia, the greater portion of Africa, and in Southern Europe. In summer it migrates to the central portions of Europe and Asia.

The habits of this species are precisely similar to those of *B. viridis*.

156. BUDYTES CALCARATUS.

THE BLACK-BACKED YELLOW WAGTAIL.

Budytes calaratus, *Hodgs. As. Res.* xix. p. 190; *Hume, Nests and Eggs*, p. 382; *Wald. in Bl. B. Burm.* p. 96; *Hume & Dav. S. F.* vi. p. 364; *Anders. Yunnan Exped.* p. 609; *Hume, S. F.* vii. p. 402, viii. p. 103; *Biddulph, Ibis*, 1881, p. 69; *Scully, Ibis*, 1881, p. 452. **Budytes citreoloides**, *Hodgs. in. Gray's Zool. Misc.* p. 83; *Gould, Birds Asia*, pt. xvii.; *Hume & Henders. Lah. to Yark.* p. 224. **Budytes citreola** (*Pall.*), *Jerd. B. Ind.* ii. p. 225.

Description.—*Male in breeding-plumage.* Whole head, neck, and lower plumage bright yellow; back, scapulars, rump and upper tail-coverts black; lesser wing-coverts dark brown mottled with yellow; median and greater coverts blackish, tipped and margined very broadly with white; quills brown, the primaries narrowly, the secondaries moderately, and the tertiaries broadly margined with white on the outer webs; the four central pairs of tail-feathers black, the next pair brown on the basal half and white on the terminal half; the outer pair white, with the base brown.

In winter the top of the head and the black of the upper plumage change to greenish olive-brown, the ear-coverts and sides of the head are marked

with dusky, and the yellow of the lower plumage is less brilliant and suffused with a pale fulvous tinge. Generally some small trace of black may be found amongst the feathers of the back.

The female in summer, according to Major Biddulph, has the back strongly tinged with green, and a good deal of dusky green is mixed with the yellow on the nape.

The female in winter appears to be quite similar to the male at the same season.

Length 6·5 inches, tail 3·2, wing 3·4, tarsus 1·05, bill from gape ·8, hind toe and claw ·75.

The allied species, *B. citreolus*, which inhabits both Europe and Asia, differs from the present in having the back in summer greenish slaty, with only a collar or patch of black on the hind neck. In winter the two species are very similar; in *B. calcaratus*, however, both the bill and tarsus appear to be longer.

The Black-backed Yellow Wagtail was procured at Pahpoon, in Tenasserim, by Mr. Davison, but only one specimen appears to have been observed. I have never myself met with it.

This species appears to be confined to the Indian peninsula and the Indo-Burmese countries. In winter it occurs in the plains as far south as the Deccan, and in the South-east Himalayas. Dr. Anderson also procured it to the east of Bhamo. In summer it seems to be found in Cashmeer and the North-west Himalayas.

Mr. Theobald, who found the nest in Cashmeer, states that it is placed in a depression in soft earth beneath a rock, and that the eggs, four in number, are pale grey dotted with greyish brown and greyish neutral.

Genus LIMONIDROMUS, *Gould*.

157. LIMONIDROMUS INDICUS.

THE FOREST-WAGTAIL.

Motacilla indica, *Gm. Syst. Nat.* i. p. 962. **Nemoricola indica**, *Jerd. B. Ind.* ii. p. 226; *Armstrong, S. F.* iv. p. 329. **Limonidromus indicus**, *Salvad. Ucc. Born.* p. 261; *Hume, S. F.* iii. p. 142; *Bl. B. Burm.* p. 96; *David et Oust. Ois. Chine*, p. 305; *Hume & Dav. S. F.* vi. p. 364; *Legge, Birds Ceylon*, p. 614; *Hume, S. F.* viii. p. 103; *Bingham, S. F.* ix. p. 189.

Description.—*Male and female.* Plumage above dull olive-green, the tail-coverts dark brown; ear-coverts and lesser wing-coverts also olive-green; a supercilium from the bill over the eye to the nape, the cheeks, chin, throat and all the lower plumage yellowish white; two black bands

across the breast, the upper one entire, the lower one broken in the middle ; median and greater wing-coverts dark brown, with broad yellowish-white tips forming two bands across the coverts ; quills brown, the second to the seventh primaries with a patch of yellowish white on the outer webs near their bases ; all the primaries and secondaries with an abrupt margin of yellowish white near their tips on the outer webs ; tertiaries brown, broadly tipped with olive-green ; central tail-feathers similar to the back ; the next three pairs dark brown ; the next pair brown with a large white tip, and the outer pair all white, except at their base, where they are brown.

Irides nearly black ; upper mandible dusky brown, lower mandible fleshy white ; legs and feet purplish white ; claws horny white. (*Armstrong.*)

Length 6·3 inches, tail 2·7, wing 3·1, tarsus ·85, bill from gape ·75, hind toe and claw ·6. The female appears to be of the same size.

This Wagtail does not appear to have any seasonal change of plumage, and it is doubtful whether it is wholly or partially migratory, or whether it is a resident species. I have met with it so seldom in Burmah that I cannot state with certainty whether it is only a winter visitor or not. Capt. Bingham inclines to the belief that it is a permanent resident in Tenasserim.

The Forest-Wagtail must be considered rather an uncommon bird in Pegu. I have only met with it once or twice in this Division, and Dr. Armstrong saw only one specimen in the Irrawaddy Delta. Mr. Blyth states that it occurs in Arrakan. Mr. Davison seems to have found it tolerably abundant in Tenasserim throughout the whole Division, and my men brought me two specimens from Malewoon. Capt. Bingham observed it in the Thoungyeen valley.

It occurs in China, Cochin China, the Malay peninsula, Sumatra and Borneo. It is also found over nearly the whole peninsula of India and in Ceylon. In summer, M. Tacsanowski informs me, it is very common in the Amoor and Ussuri in Eastern Siberia.

This Wagtail is fond of well-wooded localities and forests, and is not often found in the bare plains. It is generally seen singly tripping along a forest-path or on the banks of a stream. When disturbed it flies into a tree, and it has the habit of shaking its tail in the manner of the Wagtails. Nothing seems to be known about its nidification.

Genus CORYDALLA, Vig.

158. CORYDALLA RICHARDI.

RICHARD'S PIPIT.

Anthus richardi, Vieill. *Nouv. Dict. d'Hist. Nat.* xxvi. p. 491; Dresser, *Birds Eur.* iii. p. 325, pl. **Corydalla chinensis**, Bonap. *Consp. Av.* i. p. 247; David et Oust. *Ois. Chine*, p. 311. **Corydalla richardi**, Jerd. *B. Ind.* ii. p. 231; Brooks, *S. F.* i. p. 358; Hume, *S. F.* ii. p. 239; Bl. *B. Burm.* p. 95; Armstrong, *S. F.* iv. p. 330; David et Oust. *Ois. Chine*, p. 309; Anders. *Yunnan Exped.* p. 606; Hume & Dav. *S. F.* vi. p. 365; Cripps, *S. F.* vii. p. 288; Hume, *S. F.* viii. p. 103; Scully, *S. F.* viii. p. 316; Legge, *Birds Ceylon*, p. 621.

Description.—*Male and female.* Upper plumage, scapulars and wing-coverts brown, each feather edged with fulvous; primaries brown, narrowly, and the secondaries and tertiaries broadly, edged with fulvous; tail with the outer pair of feathers nearly entirely white, the next pair with a large triangular patch of white on the inner web; supercilium fulvous-white; ear-coverts fulvous-brown; chin and throat fulvous-white; the remainder of the lower plumage pale fulvous, darker on the flanks, thighs and vent, and striated with brown on the breast; axillaries fulvous. There is no difference in summer, except that the brown of the upper parts is darker. The fulvous on the lower plumage is very bright immediately after the moult.

Bill brown, yellowish at the base of the lower mandible; mouth yellow; iris brown; legs flesh-colour; the claws darker.

Length 7 to 8 inches, tail 3·4, wing 3·6 to 3·9, tarsus 1·2, hind claw ·6 to ·7, bill from gape ·85. The female is of much the same size as the male.

Richard's Pipit is a winter visitor to Burmah. It is excessively common in all the vast plains in the south of Pegu; but I do not recollect ever to have seen it in the northern portions near Prome and Thayetmyo. Capt. Wardlaw Ramsay procured it at Tonghoo and also in Karennee. Mr. Davison states that it is common throughout Tenasserim, and Capt. Bingham observed it in the Thoungyeen valley.

Dr. Tiraut gives it from Cochin China, and Mr. Hume from various portions of the Malay peninsula, and it has also been got in Siam. In winter it occurs over the whole of China, the Indo-Burmese countries, and India, extending to Europe and Africa. In the summer it is found in Siberia and Central Asia and in some parts of Europe.

This large Pipit arrives in Burmah in September and October, and does not leave until the commencement of April. It abounds in all rice-fields and ground covered with short grass. Although not gregarious, yet numerous birds are generally found together. It has a loud cry of alarm,

which it utters when about to take wing; and it is very wary, as a rule, allowing no very near approach. Little or nothing is known regarding its nidification, notwithstanding that a considerable number of birds appear to breed annually in Europe.

159. CORYDALLA STRIOLATA.

BLYTH'S PIPIT.

Anthus striolata, *Bl. J. A. S. B.* xvi. p. 435. **Corydalla striolata**, *Jerd. B. Ind.* ii. p. 233; *Brooks, S. F.* i. p. 359; *Hume & Dav. S. F.* vi. p. 366; *Hume, S. F.* viii. p. 103; *Legge, Birds Ceylon*, p. 628.

Description.—*Male and female.* Like *C. richardi* in plumage, but to be recognized from it by the colour of the tail. In *C. richardi* the triangular patch of white on the inner web of the penultimate tail-feathers is about two inches in length, and never in any case less than an inch and a half; in *C. striolata* the patch is never quite an inch, and is most frequently only half an inch in length. It may also be discriminated from *C. richardi* by its much shorter tarsi, weaker feet and shorter claws. The markings on the breast appear also to be always more numerous in *C. striolata* than in *C. richardi*.

Length 7 to 8 inches, tail 3, wing 3·5, tarsus 1·05, hind claw ·4 to ·55, bill from gape ·8.

Blyth's Pipit was procured by Mr. Davison at Mergui and Bankasoon, in Tenasserim, where he found it rare. It is not yet known to occur in any other part of British Burmah.

Owing to its similarity to the preceding species, it is doubtful what the geographical distribution of this bird is. It seems to occur in Nipal and Sikhim, and pretty well over the whole of India and Ceylon. It is said also to have been obtained in the Andaman Islands by Capt. Wardlaw Ramsay.

It is no doubt a migratory species; but owing to the few observers who have met with it having failed to give dates, it is impossible to say where it is found in summer and winter respectively. Mr. Swinhoe, in his last list of the birds of China, does not mention this species. It is probable that it retires to breed to Central Asia, the favourite nesting-place of so many of the migratory birds.

In habits this Pipit is not likely to differ from *C. richardi*.

160. CORYDALLA RUFULA.

THE INDIAN PIPIT.

Anthus rufulus, Vieill. *Nouv. Dict. d'Hist. Nat.* xxvi. p. 494. **Anthus malayensis**, Eyton, *P. Z. S.* 1839, p. 104. **Corydalla rufula**, Jerd. *B. Ind.* ii. p. 232; *Hume, Nests and Eggs*, p. 384; *Bl. B. Burm.* p. 96; *Armstrong, S. F.* iv. p. 330; *Hume & Dav. S. F.* vi. p. 366; *Cripps, S. F.* vii. p. 288; *Hume, S. F.* viii. p. 103; *Scully, S. F.* viii. p. 317; *Legge, Birds Ceylon*, p. 625. **Corydalla malayensis**, *Hume & Dav. S. F.* vi. p. 366; *Hume, S. F.* viii. p. 103. **Corydalla ubiquitaria** (Hodgs.), *Anders. Yunnan Exped.* p. 607.

Description.—*Male and female.* So similar to *C. richardi* as to require no separate description. It differs solely in being much smaller.

Bill dark brown, yellowish at the base of the lower mandible; iris brown; legs flesh-colour; claws brownish.

Length 6·5 inches, tail 2·4, wing 3, tarsus 1, bill from gape ·8, hind claw ·5.

After examining a large series of *C. malayensis* from the Malay peninsula and Sumatra, I am unable to find that it differs in any respect whatever from the Indian bird, *C. rufula*. The differential characters given by Mr. Hume (*l. c.*) do not hold good when a large series of both supposed races are compared. *C. lugubris*, Walden, and *C. hasselti*, Temm., are probably only varieties of *C. rufula*.

The Indian Pipit is found as a permanent resident over nearly the whole of British Burmah. Mr. Blyth records it from Arrakan; and I found it very abundant in every part of Pegu, except the dry northern parts near Prome and Thayetmyo. Capt. Wardlaw Ramsay procured it at Tonghoo; and both Mr. Davison and Capt. Bingham found it abundant in all those parts of Tenasserim which they respectively explored.

It occurs in the Malay peninsula, Siam, Cochin China and Sumatra, and probably in other parts of the archipelago. It is spread over the Indo-Burmese countries and the whole of the peninsula of India and Ceylon. It probably is not found north of the Himalayas.

This Pipit is found in all parts of the country except the well-wooded ones. It is partial to open grass-plains and dry paddy-fields, and is also met with in compounds and gardens. It runs very rapidly along the ground, and never flies very far. It feeds both on insects and grass-seeds. It breeds in Burmah during March, April and May. The nest, which is made of grass-stalks and roots, is placed in a hollow in the ground under or close to a clod or tuft of grass. The eggs, usually three in number, are pale greenish marked with brown and dull rufous-brown.

Genus ANTHUS, *Bechst.*

161. ANTHUS CERVINUS. 1

THE RED-THROATED PIPIT.

Motacilla cervina, *Pall. Zoogr. Rosso-As.* i. p. 511. **Anthus cervinus**, *Hume, S. F.* ii. p. 239; *Dresser, Birds Eur.* iii. p. 299, pl.; *Wald. in Bl. B. Burm.* p. 96; *David et Oust. Ois. Chine*, p. 306; *Hume & Dav. S. F.* vi. p. 367; *Hume, S. F.* viii. p. 103.

Description.—*Male in summer.* A distinct supercilium from the nostrils to the nape, cheeks, chin, throat and breast a fine vinous pink, the breast with a few streaks of brown, more numerous on the sides; lores and ear-coverts vinous brown; remainder of lower plumage pale rufescent, much streaked with brown on the flanks; axillaries buff, tinged with yellowish in some specimens; the whole upper plumage, coverts and tertiaries dark brown, each feather edged with fulvous, tinged with roseate on the head and mantle after the moult, but soon losing this tinge; quills brown, narrowly edged with fulvous-white; tail dark brown, the outer pair of feathers with a large diagonal streak of white extending from the base to the tip, the next pair faintly tipped with white.

Female in summer. Differs from the male in having only the chin and throat vinous pink, and not the breast, which is the same colour as the other parts of the lower plumage; the breast is profusely and very broadly streaked with dark brown; there is frequently a row of spots down the side of the throat. The other parts are the same as in the male.

In winter both sexes are alike and are similar to the summer female, except that in many specimens all traces of vinous pink have disappeared. Numerous birds, however, probably males, retain a flush of pink on the chin or throat or on both, and also occasionally on the breast, throughout the winter.

Young birds are very like the adults in winter; but the lower plumage is suffused with a strong yellowish-buff tinge.

Iris brown; bill dark brown, the gape and base of lower mandible yellowish; legs yellowish flesh-colour; claws horn-colour.

Length 6·4 inches, tail 2·4, wing 3·3, tarsus ·9, bill from gape ·63. The female is of about the same size as the male.

The Red-throated Pipit is a winter visitor to Burmah. In Southern Pegu it is very abundant from October to April; and Mr. Davison apparently found it equally abundant throughout Tenasserim. In the Thoungyeen valley Capt. Bingham observed it travelling west in April.

Dr. Tiraud states that it is common in Cochin China; and Mr. Swinhoe writes that it is found throughout China, Formosa and Hainan. It

probably occurs in the Indo-Burmese countries, and it extends sparingly into India, having been found in the Andaman Islands and in Northern India. It ranges into Europe, and it is found throughout that continent. It passes the summer in Northern Asia and Northern Europe.

This Pipit frequents the open parts of the country, and may be seen generally on waste lands and the margins of rivers. After the stubble is trodden down and burnt, great numbers of these birds betake themselves to the extensive grounds thus made smooth for them; and they may be observed throughout the day running about over the baked earth catching insects. They are not particularly shy, and are approached without difficulty.

In Europe the Red-throated Pipit makes a flimsy nest of grass or straw, and places it on the ground in a hollow, under shelter of a clod or tuft of grass, in marshy localities. The eggs are greenish or brown, mottled with dark brown.

162. ANTHUS ROSACEUS.

HODGSON'S PIPIT.

Anthus rosaceus, *Hodgs. in Gray's Zool. Misc.* p. 83; *Hume, Nests and Eggs*, p. 386; *Hume, S. F.* ii. p. 240; *Bl. B. Burm.* p. 96; *David et Oust. Ois. Chine*, p. 308; *Hume, S. F.* viii. p. 103; *Scully, S. F.* viii. p. 317. *Anthus cervinus* (*Pall.*), *Jerd. B. Ind.* ii. p. 237.

Description.—Very similar to *A. cervinus*, and subject to the same seasonal and sexual differences of plumage; the whole upper plumage is darker and tinged with green; the parts which are vinous pink in *A. cervinus* are in this species a delicate pinkish grey; the axillaries are yellow at all seasons, and this is the best character by which to discriminate *A. rosaceus* from *A. cervinus*. It is also a larger bird.

Bill dusky, blackish on culmen and fleshy brown at base of lower mandible; irides dark brown; feet brownish fleshy; claws dusky. (*Scully.*)

Length 6·5 inches, tail 2·8, wing 3·5, tarsus ·9, bill from gape ·72, hind claw ·4.

I enter this Pipit in my list on the authority of Mr. Blyth, who states (*l. c.*) that it occurs in Arrakan.

Hodgson's Pipit is found throughout the whole range of the Himalayas, extending in the winter to the plains of Northern India. It has also been found in Cachar and Western China. Very little is known about its migrations and range. The nest of this bird is said to have been found in the Himalayas, but it does not appear to have been properly authenticated. The bulk of the birds probably breed in Central Asia. Mr. Andrew Anderson found them about to breed in May in Kumaon.

Genus PIPASTES, *Kaup*.

163. PIPASTES MACULATUS.

THE EASTERN TREE-PIPIT.

Anthus maculatus, *Hodgs. in Gray's Zool. Misc.* p. 83; *Anderson, S. F.* iii. p. 353; *Hume, S. F.* viii. p. 103. **Pipastes agilis** (*Sykes*), *apud Jerd. B. Ind.* ii. p. 228; *Hume, Nests and Eggs*, p. 382. **Pipastes maculatus**, *Bl. & Wald. B. Burm.* p. 96; *Brooks, S. F.* iii. p. 250; *Armstrong, S. F.* iv. p. 330; *Anderson, Yunnan Exped.* p. 608; *Scully, S. F.* viii. p. 316.

Description.—*Male and female in summer.* Whole upper plumage rich olive-brown; the feathers of the head with distinct, broad, dark brown centres; the feathers of the back with indistinct streaks confined to the shaft and its neighbourhood; wings and coverts dark brown with broad edgings of fulvous or fulvous-brown; tail dark brown, the outer pair with a long diagonal patch of white from base to tip; the next with white tips; this and the other pairs all margined with olive-brown on the outer web; lores and ear-coverts fulvous-brown; a supercilium, the cheeks, chin, throat and breast rich fulvous, the posterior part of the supercilium turning to pure white; a moustachial streak running down the sides of the throat to the breast, which is marked with distinct and numerous oval black spots; flanks dull fulvous streaked with brown; abdomen, vent and under tail-coverts nearly white; axillaries greyish brown.

In winter the rich fulvous of the head and breast give way to white or to pale fulvescent white; there are no other changes of any note.

Bill bluish black, darker above, and yellowish at the base of the lower mandible; iris brown; legs and feet flesh-colour.

Length 6·5 inches, tail 2·5, wing 3·2, tarsus ·85, bill from gape ·62, hind claw ·3.

This Pipit and the next are very closely allied. In *P. maculatus* the streaks on the back are very narrow, and the whole upper plumage is strongly tinged with olive-brown or green. In *P. trivialis* the streaks on the back are very broad, occupying quite half the feather, and the whole upper plumage is tinged with fulvous, not with greenish. Again, in *P. maculatus* the posterior part of the eye-streak is pure white; in *P. trivialis* the whole eye-streak is uniform fulvous. The notes of the two birds are also said to be quite different.

The Eastern Tree-Pipit is a very common winter visitor to all parts of British Burmah. It arrives in October, and leaves in March and April.

It has a tolerably wide range in Asia. Mr. Swinhoe states that it is found throughout China, but he does not say whether any remain in that country to breed. Dr. Tiraud gives it in his Catalogue of the birds of

Cochin China. It is spread in winter over the Indo-Burmese countries and the peninsula of India. In the Himalayas it appears to be a winter visitor in some parts and a resident species in others. The bulk of the birds appear, however, to go north of the Himalayas to breed; and, as Mr. Seebohm did not meet with this species in Siberia, Indian birds probably go no further than Central Asia. Chinese birds probably migrate to Eastern Siberia and Japan, in which latter country they have been found breeding.

This Pipit is found very abundantly in all the wooded tracts and gardens of Burmah. It is generally seen in flocks walking about on the ground under the shade of trees. On being disturbed, it flies up on to the larger branches, descending again to the ground after a short time. It walks on the horizontal branches of trees very nimbly, and even pursues insects there. It has a sibilant single note, which it frequently utters.

Mr. Andrew Anderson found the bird breeding in Kumaon in May. The nest is a shallow flimsy structure made of dry grass, with which moss is occasionally intermingled; it is placed in a depression in the ground. The eggs, three or four in number, are greyish white speckled all over with purple and purplish brown.

164. PIPASTES TRIVIALIS.

THE WESTERN TREE-PIPIT.

Alauda trivialis, Linn. *Syst. Nat.* i. p. 288. *Alauda plumata*, P. L. S. Müll. *Natursyst. Anhang*, p. 137. *Anthus agilis*, Sykes, *P. Z. S.* 1832, p. 91; Brooks, *S. F.* iv. p. 278. *Pipastes arboreus* (Bechst.), Jerd. *B. Ind.* ii. p. 229; Hume & Henders. *Lah. to Yark.* p. 226. *Pipastes plumatus*, Hume, *Nests and Eggs*, p. 383; *id.* *S. F.* iii. p. 142. *Anthus trivialis*, Dresser, *Birds Eur.* iii. p. 309; Hume, *S. F.* viii. p. 103.

Description.—Very similar to *P. maculatus*, differing chiefly in the characters pointed out above.

I procured one specimen of this Pipit on the Pegu hills in April. I have never met with it again, nor has it ever been observed in British Burmah by any other naturalist.

Burmah appears to be about the extreme eastern limit of this species. Neither Mr. Swinhoe nor Père David obtained it in China. It has an extremely wide range, however, as it is found in winter throughout India, South-western Asia, and occupies the greater part of Europe in summer.

In summer this Pipit migrates to northern regions, the Himalayas being about the most southern limit in Asia at which some of the birds remain to breed. Mr. Seebohm did not observe it in Siberia further north than 62° of latitude. It breeds in many parts of Europe. Its habits are apparently the same as those of *P. maculatus*.

Family BRACHYPODIDÆ.

Subfamily BRACHYPODINÆ.

Genus HYPsipETES, *Vigors*.

165. HYPsipETES PSAROIDES.

THE HIMALAYAN BLACK BULBUL.

Hypsipetes psaroides, *Vigors*, *P. Z. S.* 1831, p. 43; *Jerd. B. Ind.* ii. p. 77; *Henders. & Hume, Lah. to Yark.* p. 198; *Bl. B. Burm.* p. 132; *Hume & Dav. S. F.* vi. p. 296; *Hume, S. F.* viii. p. 98; *Scully, S. F.* viii. p. 293; *Sharpe, Cat. Birds B. Mus.* vi. p. 36.

Description.—*Male and female*. Forehead to nape, with crest, lores, a spot at the base of the lower mandible and another one at the angle of the chin, and a streak under the ear-coverts black; ear-coverts, chin, throat, breast and flanks grey; abdomen and vent whitish, the feathers being pale grey with white margins; under tail-coverts grey with broad white edges; upper plumage and wing-coverts dark grey; wings brown, edged exteriorly with grey; tail dark brown, edged externally, except at the tips, with grey.

Bill and feet bright coral-red; irides dark brown; claws horny brown. (*Scully*.)

Length 10 inches, tail 4·4, wing 5, tarsus ·75, bill from gape 1·2. The female is considerably smaller.

The Himalayan Black Bulbul, according to Mr. Blyth, occurs in Arrakan. I have never met with it in Pegu, nor does it apparently occur in Tenasserim, where the next species replaces it.

It is found along the Himalayan range from Assam to Simla, but not generally above the altitude of 5000 feet. It probably occurs in the hill-tracts of the Indo-Burmese countries.

Dr. Scully says this species is social, except in the breeding-season, fearless and very noisy, having a variety of notes. It is chiefly found near the tops of trees.

It makes a rather large cup-shaped nest of grass and leaves, which is placed in the fork of a branch of a tree; and the eggs, usually four in number, are pinkish white marked with red and purple. In Arrakan it probably begins to nest in April.

166. **HYPSIPETES CONCOLOR.**

THE BURMESE BLACK BULBUL.

Hypsipetes concolor, *Bl. J. A. S. B.* xviii. p. 816; *Bl. & Wald. B. Burm.* p. 132; *Hume & Dav. S. F.* vi. p. 295; *Hume, S. F.* viii. p. 98; *Bingham, S. F.* ix. p. 181; *Sharpe, Cat. Birds B. Mus.* vi. p. 38. **Hypsipetes yunnanensis**, *Anders. P. Z. S.* 1871, p. 213; *Dav. et Oust. Ois. Chine*, p. 137; *Anders. Yunnan Exped.* p. 656, pl. L. **Hypsipetes subniger**, *Hume, S. F.* v. p. 109.

Description.—*Male and female.* Like *H. psaroides*, but darker; the whole back between the scapulars, the lesser wing-coverts, the cheeks and sides of the neck are black.

Legs, bill and feet varied from bright to deep coral-red; irides dull crimson-lake. (*Davison.*)

Length 10 inches, tail 4·5, wing 5, tarsus ·7, bill from gape 1·2. The female is smaller.

The Burmese Black Bulbul is found, according to Mr. Davison, in Tenasserim from the extreme north down to Meetan at the foot of Mooleyit mountain, but it does not ascend to the summits of the highest hills. Capt. Wardlaw Ramsay found it at Tonghoo and also in the Karin hills at an altitude of 1500 feet. Capt. Bingham states that it occurs in the Thoungyeen valley.

Out of British Burmah it has only been found to the east of Bhamo and in the Khasia hills.

The present species is said by Mr. Davison to go about in small flocks, from tree-top to tree-top, keeping up a continual chirping chatter, living chiefly on small berries, but also occasionally eating insects, and being extremely fond of the nectar of flowers.

There are some closely allied species in China. *H. perniger* is deep black throughout; *H. nigerrimus* is also deep black, but the edges of the wing-feathers are grey; *H. leucocephalus* has the forehead and abdomen white; and *H. amaurotis* has the ear-coverts chestnut.

Genus HEMIXUS, *Hodgs.*

167. HEMIXUS FLAVALA.

THE BROWN-EARED BULBUL.

Hemixus flavala, *Hodgs. in Gray's Zool. Misc.* p. 83; *Jerd. B. Ind.* ii. p. 80; *Bl. B. Burm.* p. 133; *Hume, S. F.* v. p. 111; *Anders. Yunnan Exped.* p. 657; *Hume, S. F.* viii. p. 98; *Scully, S. F.* viii. p. 295; *Sharpe, Cat. Birds B. Mus.* vi. p. 49.

Description.—*Male and female.* The whole upper plumage with the lesser and median wing-coverts dark ashy, the upper tail-coverts tinged with olive-green; tail brown, tinged with olive-green on the basal halves of the outer webs; greater wing-coverts brown on the inner and olive-yellow on the outer webs; wings brown; the fourth to the seventh primaries edged with grey below the emarginations; all the other quills edged externally with olive-yellow, obsolete on the earlier primaries and increasing in extent rapidly, until on the tertiaries the olive-yellow occupies nearly the whole outer web; lores and cheeks blackish; ear-coverts bronze-grey; chin, throat, centre of abdomen and vent white; breast, sides of neck and flanks light grey.

Bill black; irides dark reddish brown; feet dusky. (*Scully.*)

Length 8·5 inches, tail 3·5, wing 3·8, tarsus ·7, bill from gape ·95. The female is rather smaller.

The Brown-eared Bulbul has been recorded from Arrakan by Mr. Blyth, and my own men procured it in the hills of that Division. It is not yet known to occur in any other part of British Burmah. It is probably a resident in Arrakan.

It extends through the Indo-Burmese countries into Assam, and along the Himalayas to about Simla.

Very little has been written about the habits of this Bulbul, and its nest has not yet been found.

Hemixus castanonotus, from Hainan, has most of the plumage chestnut and the yellowish margins to the wings are inconspicuous. *H. cinereus*, from the Malay countries, has the margins of the wings grey, in which it resembles *H. malaccensis*; but there are no white streaks on the lower plumage as in this latter.

168. HEMIXUS HILDEBRANDI.

HILDEBRAND'S BROWN-EARED BULBUL.

Hemixus hildebrandi, *Hume, S. F.* ii. p. 508; *Wald. in Bl. B. Burm.* p. 133; *Hume, S. F.* v. p. 111; *Hume & Dav. S. F.* vi. p. 299; *Hume, S. F.* viii. p. 98; *Sharpe, Cat. Birds B. Mus.* vi. p. 50.

Description.—*Male and female.* Similar to *H. flavala*, but with the forehead, crown and nape dark brown or blackish.

Irides crimson; bill black; legs and feet dark reddish horny. (*Davison.*)

Length 8·5 inches, tail 4, wing 4, tarsus ·65, bill from gape ·9. The female is a trifle smaller.

Hildebrand's Brown-eared Bulbul was procured by Mr. Davison in the pine-forests of the Salween district in Tenasserim, at an elevation of 3000 feet. Capt. Wardlaw Ramsay also met with it further north; and of the three specimens procured by that gentleman, one is labelled as having been shot in Tonghoo and the other two in the Karin hills, at elevations respectively of 2000 and 4000 feet.

Nothing has been noted about its habits.

169. HEMIXUS DAVISONI.

DAVISON'S BROWN-EARED BULBUL.

Hemixus davisoni, *Hume, S. F.* v. p. 111; *Hume & Dav. S. F.* vi. p. 299; *Hume, S. F.* viii. p. 98; *Sharpe, Cat. Birds B. Mus.* vi. p. 51.

Description.—*Male and female.* Like *H. flavala*, but with the cap and back a rich warm brown and with much less yellow on the wing. (*Hume.*)

Bill and claws black; legs and feet reddish brown; irides crimson-lake.

Length 8·5 inches, tail 3·6, wing 4·04, tarsus ·6, bill from gape ·95. (*Davison.*)

I have not been able to examine a specimen of this bird. The type, the only bird apparently procured by Mr. Davison, was shot at Thoungya Sakan in Tenasserim.

170. HEMIXUS MALACCENSIS.

THE STREAKED BULBUL.

Hypsipetes malaccensis, *Bl. J. A. S. B.* xiv. p. 574; *Salvad. Ucc. Born.* p. 202; *Hume & Dav. S. F.* vi. p. 298; *Hume, S. F.* viii. p. 98; *Sharpe, Ibis*, 1879, p. 256. *Hemixus malaccensis*, *Sharpe, Cat. Birds B. Mus.* vi. p. 53.

Description.—*Male and female.* The whole upper plumage brownish green; lesser wing-coverts the same; greater coverts, wings and tail dark brown, edged with the colour of the upper plumage; ear-coverts and sides of the head brownish green, the feathers of the former with pale shafts; lores ashy grey; cheeks, chin, throat and breast ashy, with broad greyish-white shaft-streaks; sides of the body the same, but with the shaft-streaks less distinct; abdomen, vent and under tail-coverts white; under wing-coverts and axillaries pale yellow.

Legs and feet pinkish brown to reddish brown; bill horny brown or very dark horny brown; irides mahogany-brown to litharge-red. (*Davison.*)

Length 9 inches, tail 3·7, wing 4·4, tarsus ·7, bill from gape 1·1. The female is rather smaller.

The Streaked Bulbul occurs in Tenasserim from Mergui down to the extreme southernmost point, but is comparatively rare. It extends down the Malay peninsula, where, according to Mr. Davison, it is common. It also occurs in Sumatra and Borneo, and, according to Dr. Tiraud, in Cochin China.

Mr. Davison states that the habits and notes of this bird are precisely similar to those of *Iole tickelli* described below.

Genus IOLE, *Blyth*.

171. IOLE VIRIDESCENS.

THE SMALL OLIVE BULBUL.

Iole virescens, *Bl. J. A. S. B.* xiv. p. 573. *Iole viridescens*, *Bl. Ibis*, 1867, p. 7; *Bl. B. Burm.* p. 133; *Hume & Dav. S. F.* vi. pp. 315, 515; *Hume, S. F.* viii. p. 98; *Sharpe, Cat. Birds B. Mus.* vi. p. 56.

Description.—*Male and female.* The whole upper plumage olive-brown, the head darker; the wings dark brown edged externally with the colour of the back; tail like the wings but tinged with rufescent; lores and above the eye olive-yellow; the ear-coverts darker; chin, throat, breast and flanks olive-yellow; the abdomen brighter yellow; under tail-coverts fawn-brown; under wing-coverts and axillaries pale yellow. The plumage of

this bird varies in colour very much; freshly moulted birds are much tinged with ochraceous below, whereas birds with the plumage worn, lose this tinge and become dull olive-brown or olive-yellow.

Iris brown; bill bluish horn-colour; inside of mouth flesh-colour; eyelids grey; legs and claws pinkish brown.

Length 7·1 inches, tail 3, wing 3·05, tarsus ·72, bill from gape ·93. The female is of about the same size.

Iole olivacea from the Malay peninsula is close to *I. viridescens*. It differs in having the head the same shade as the back, and in having the wings margined with brown. *Iole cinerea* is another closely allied species, which Mr. Sharpe places in the genus *Hemixus*. It is of large size (wing nearly 4 inches) and the throat is white.

The Small Olive Bulbul, according to Mr. Blyth, occurs in Arrakan. I have found it plentiful in Pegu on the spurs of the Pegu hills and in the forests of the adjacent plains, except in the dry portion near Thayetmyo and Prome, where it appears to be absent. It extends up the Sittang valley to Tonghoo, and Capt. Wardlaw Ramsay found it further east in the Tsankoo hills. According to Mr. Davison it is found in every portion of Tenasserim, not, however, ascending the higher hills.

It extends down the Malay peninsula as far at least as Tonka, and to the north it appears to have a considerable range, for it has been procured in the Khasia hills and in Cachar.

This Bulbul is found in forests and their outskirts, the edges of clearings and orchards. There are generally several birds together. The food consists almost entirely of small berries, and it never seems to descend to the ground. Common as the bird is in some parts of Pegu, I have never been able to find its nest.

172. IOLE MACCLELLANDI.

THE RUFOUS-BELLIED BULBUL.

Hypsipetes maclellandi, *Horsf. P. Z. S.* 1839, p. 159; *Jerd. B. Ind.* ii. p. 79; *Hume, Nests and Eggs*, p. 281; *Bl. B. Burm.* p. 133; *Hume & Dav. S. F.* vi. p. 298; *Hume, S. F.* viii. p. 98; *Scully, S. F.* viii. p. 294. **Iole maclellandi**, *Sharpe, Cat. Birds B. Mus.* vi. p. 59.

Description.—*Male and female.* Forehead to nape with crest rich brown, the shafts of the feathers buffy white; whole upper plumage, wing-coverts, tertiaries and tail olive-green, brightest on the tail, the shafts of which are black above and yellow below; lores and cheeks mixed grey and white; chin and throat white, the feathers lanceolate and with grey bases; ear-coverts and sides of the neck chestnut; breast the same colour, the feathers

with pale shaft-stripes ; abdomen and flanks pale chestnut ; under tail-coverts, thighs and vent ochraceous yellow ; under wing-coverts isabelline ; primaries and secondaries dark brown edged with olive-green.

Bill blackish above, livid grey horny below ; irides brownish red or dark red ; feet fleshy brown ; claws brown horny. (*Scully*.)

Length 9·5 inches, tail 4·3, wing 4·4, tarsus ·7, bill from gape 1·15. The female is smaller.

The Rufous-bellied Bulbul, according to Mr. Blyth, occurs in Arrakan.

Northwards it is known to inhabit the Khasia and Tipperah hills, and it extends along the Himalayas from Assam westwards to Mussoorie.

This bird frequents forests and is commonly seen in pairs. The nest, according to Mr. Hodgson, is a shallow saucer made of roots and leaves, and is suspended in the fork of a branch.

173. IOLE TICKELLI.

TICKELL'S BULBUL.

Hypsipetes tickelli, *Bl. J. A. S. B.* xxiv. p. 275 ; *Bl. & Wald. B. Burm.* p. 133 ; *Hume & Dav. S. F.* vi. p. 296 ; *Hume, S. F.* viii. p. 98 ; *Sharpe, Cat. Birds B. Mus.* vi. p. 60.

Description.—*Male and female.* Very similar to *I. maclellandi*, differing only in the following points :—The ear-coverts are paler rufescent with distinct pale shaft-lines ; the breast is ashy brown with pale shaft-lines ; the abdomen and vent are white ; the under tail-coverts are pure yellow ; and the sides of the body are washed with olive.

Legs and feet fleshy pink, dark fleshy pink, light purplish brown, pale pinkish brown or pale reddish brown ; bill black, horny black or dark horny brown ; irides wood-brown, deep red-brown, light red or crimson. (*Davison*.)

Length 9·2 inches, tail 4, wing 4, tarsus ·7, bill from gape 1·2. The female is a trifle smaller.

I. holti from China is an allied species, differing from *I. maclellandi* in having the whole back, rump and upper tail-coverts brown.

Tickell's Bulbul occurs in Tenasserim from the pine-forests of the Salween district down to Mooleyit, at elevations of not less than 2500 feet. Capt. Wardlaw Ramsay procured it in Karennee at elevations from 2500 to 4000 feet.

This species, according to Mr. Davison, is usually found on the outskirts of the forest along forest-paths, and in fact wherever the forest is not too

dense. It does not appear to be so noisy as the other large Bulbuls. It feeds chiefly on berries, with an occasional insect, and it sometimes sucks the nectar of flowers.

Genus PINAROCICHLA, *Sharpe*.

174. PINAROCICHLA EUPTILOSA.

THE CRESTED BROWN BULBUL.

Brachypus euptilosus, *Jard. & Selby, Ill. Orn.* iv. (new ser.) pl. iii. **Brachypodius tristis**, *Bl. J. A. S. B.* xiv. p. 576. **Criniger tristis**, *Bl. Ibis*, 1865, p. 47; *Hume & Dav. S. F.* vi. p. 303; *Hume, S. F.* viii. p. 98. **Criniger sennii** (Müll.), *Salvad. Ucc. Born.* p. 207. **Euptilosus euptilosus**, *Hume, S. F.* viii. pp. 62, 162. **Pinarocichla euptilosa**, *Sharpe, Cat. Birds B. Mus.* vi. p. 62.

Description.—*Male and female.* Forehead and crown brown, the feathers slightly edged paler; hind neck, back, scapulars, lesser and median wing-coverts olive-brown with a tinge of rufous; greater wing-coverts and tail-coverts like the back, but more rufous; rump like the back, but the bases of the feathers brown, showing through the rufous-brown in places; tail rufous-brown, the three outer pairs of feathers tipped with white; primaries and secondaries brown on the inner webs, rufous-brown on the outer ones, tertiaries rufous-brown on both webs; sides of the head ashy brown; lower plumage creamy white, tinged with ashy on the chin, throat, breast and sides; under wing-coverts and axillaries pale creamy yellow.

Legs and feet vary from dark grey-brown or very dark plumbeous brown to black; the bill black; irides in the male crimson, in the female varying from wood-brown to litharge-red. (*Davison*.)

Length 8·8 inches, tail 3·6, wing 3·7, tarsus ·7, bill from gape ·9. The female is smaller.

The Crested Brown Bulbul has been found in the extreme southern portion of Tenasserim at Pakchan and Bankasoon.

It extends down the Malay peninsula and occurs in the islands of Sumatra, Java and Borneo.

Mr. Davison states that this species seems to avoid the forests and affects small clumps of trees or bushes or patches of scrub-jungle in open or cultivated country. It is only seen singly or in pairs and is a very scarce bird in the extreme south of Tenasserim.

Genus MICROPUS, *Swains.*

175. MICROPUS MELANOCEPHALUS.

THE BLACK-HEADED BULBUL.

Lanius melanocephalus, *Gm. Syst. Nat.* i. p. 309. **Turdus atriceps**, *Temm. Pl. Col.* 147. **Ixos metallicus**, *Eyton, Ann. N. Hist.* ser. 1, xvi. p. 228. **Brachypodius melanocephalus**, *Salvad. Ucc. Born.* p. 201; *Bl. B. Burm.* p. 136; *Armstrong, S. F.* iv. p. 324; *Hume & Dav. S. F.* vi. p. 318; *Hume, S. F.* viii. p. 98. **Brachypodius immaculatus**, *Sharpe, Ibis*, 1876, p. 39. **Micropus melanocephalus**, *Sharpe, Cat. Birds B. Mus.* vi. p. 65.

Description.—*Male.* Forehead, crown, sides of the head, chin and throat metallic black; lores dull black; breast, flanks, upper abdomen, back, scapulars and wing-coverts olive-green; upper tail-coverts brighter; rump yellowish with the bases of the feathers black; lower abdomen, vent and under tail-coverts yellow; winglet, primaries and their coverts black, edged paler on the outer webs; secondaries black, broadly edged on the outer web with olive-green; tertiaries olive-green on the outer webs and black on the inner; tail olive-green on the basal two-thirds of its length, then black and all the feathers tipped with yellow.

The *female* differs only in being of a darker colour.

The *young bird* has the whole plumage, including the head, of a dull olive-green colour. The yellow tips to the head are less in extent and the margins to the quills are inconspicuous. About May the head begins to turn black.

Bill black; mouth pale blue; iris blue; legs plumbeous. In the young the gape is whitish.

Length 7·2 inches, tail 3·2, wing 3·3, tarsus ·55, bill from gape ·8. The female is a trifle smaller.

The Black-headed Bulbul is stated by Mr. Blyth to occur in Arrakan. It is found generally distributed over the southern portions of Pegu. It is very abundant near Rangoon and all the way up to Pegu and on the spurs of the hills north of that town. Mr. Blanford met with it at Bassein and Dr. Armstrong at Syriam. Capt. Wardlaw Ramsay procured it in Karennee. Mr. Davison states that it is found abundantly over the whole of Tenasserim except on the higher slopes of the highest hills. Capt. Bingham records it from the Thoungyeen valley.

It extends down the Malay peninsula to Sumatra, Java, Borneo and Palawan; and to the north of British Burmah it appears to be spread as far as Dacca and Tipperah.

This Bulbul is a very common bird wherever it is found; but is far more abundant in the rains than at other times. This appears to be the case

not only in Pegu but also in Tenasserim, whence I should judge it to be partially migratory.

They are always found in small or large companies, never alone, and they appear to feed entirely on fruits. They frequent thin jungle and the neighbourhood of gardens. I do not recollect to have heard its note; but Mr. Davison tells me that it has two notes, very distinct and unlike those of other Bulbuls. The ordinary one is a lively, sharp, but pleasant single chirp; the other is a melancholy double whistle, not unlike that of a *Sibia*. I have frequently seen them sitting on the telegraph-wires near Rangoon. The nest has not yet been found.

176. MICROPUS CINEREIVENTRIS.

THE GREY-BELLIED BULBUL.

Brachypodius cinereiventris, *Bl. J. A. S. B.* xiv. p. 576; *Wald. in Bl. B. Burm.* p. 136; *Hume & Dav. S. F.* vi. p. 319; *Hume, S. F.* viii. p. 98; *Oates, S. F.* x. p. 210. *Micropus cinereiventris*, *Sharpe, Cat. Birds B. Mus.* vi. p. 67.

Description.—*Male and female.* Like *M. melanocephalus*, differing only in having the breast, upper abdomen and hind neck ashy instead of olive-green.

Iris blue; eyelids grey; bill black; mouth dusky fleshy; legs and claws brownish black.

Length 6·9 inches, tail 2·9, wing 3·15, tarsus 6, bill from gape ·85.

Micropus melanoleucus occurs in the Malay peninsula and may probably extend into Tenasserim. It is of a blackish colour. Other species occur in other parts of Asia; but they appear to be very local and are not likely to visit Burmah.

The Grey-bellied Bulbul occurs sparingly in Pegu, being found in company with the preceding species. I have procured it near Rangoon and also near Pegu. Capt. Wardlaw Ramsay got it at Tonghoo. It does not appear to have been yet observed in Tenasserim.

It seems to extend a short distance down the Malay peninsula, for Mr. Hume records it from Tonka, and, as it has also been observed in Dacca and Tipperah, it is probably spread over the Indo-Burmese countries.

I noted nothing peculiar about its habits. Although this species is, as far as I am aware, always found in company with *M. melanocephalus*, yet there is no reason to think that it is merely on accidental variety of that species. The frequency of its occurrence forbids such a supposition.

Genus CRINIGER, *Temm.*

177. CRINIGER PHÆOCEPHALUS.

THE GREY-HEADED BULBUL.

Ixos phæocephalus, *Hartl. Rev. Zool.* 1844, p. 401. **Criniger phæocephalus**, *Wald. Ibis*, 1871, p. 169, f. 2; *Salvad. Ucc. Born.* p. 207; *Hume & Dav. S. F.* vi. p. 302; *Hume, S. F.* viii. p. 98; *Sharpe, Cat. Birds B. Mus.* vi. p. 74.

Description.—*Male and female.* Head from the forehead to the nape dark slaty grey; lores, ear-coverts and sides of the head pale grey; cheeks, chin and throat white; remainder of lower plumage deep yellow, suffused with olive-green on the flanks and sides of the breast; upper plumage with the wing-coverts olive-green; tail rufous-brown, rather brighter on the edges of the outer webs; wings brown, the outer webs edged with ruddy olive and the tertiaries wholly of this colour; the feathers of the head in new plumage are edged with light grey.

The legs, feet and claws varied from fleshy white, sometimes with a pinkish tinge, to fleshy yellow; the upper mandible from dark plumbeous to dark horny brown; lower mandible and edges of upper mandible pale plumbeous; irides snuff-brown, burnt-sienna brown or reddish brown. (*Davison.*)

Length 8·3 inches, tail 3·4, wing 3·7, tarsus ·8, bill from gape 1. The female is considerably smaller.

The Grey-headed Bulbul occurs in the extreme south of Tenasserim about Malewoon and Bankasoon, where it appears to be common.

It extends down the Malay peninsula, and occurs in the islands of Borneo and Sumatra.

The birds of this genus are more sociable than the majority of the Bulbuls, being generally met with in small parties. They are characterized by a loud harsh note, which is incessantly uttered when the birds are disturbed.

178. CRINIGER GRISEICEPS.

THE BURMESE WHITE-THROATED BULBUL.

Criniger flaveolus, *apud Bl. B. Burm.* p. 134. **Criniger griseiceps**, *Hume, S. F.* i. p. 478; *Wald. in Bl. B. Burm.* p. 134; *Hume & Dav. S. F.* vi. p. 300; *Hume, S. F.* viii. p. 98; *Sharpe, Cat. Birds B. Mus.* vi. p. 77; *Oates, S. F.* x. p. 209.

Description.—*Male and female.* Lores, cheeks and ear-coverts pale grey; chin and throat white; lower plumage yellow, tinged with ochraceous and

becoming pure buff on the under tail-coverts ; head from the forehead to nape greyish brown ; upper plumage with the lesser and median wing-coverts yellowish green ; upper tail-coverts and tail rufous-brown ; wings and greater coverts brown, edged on the outer webs with a colour like that of the tail ; tertiaries almost wholly of this colour ; after the moult the plumage is much richer than at other times, being more ochraceous below ; some specimens have the crest-feathers tipped with olive-green and the lower plumage brighter yellow.

Bill bluish, darker on the anterior half of culmen and the tip ; eyelids plumbeous ; iris reddish brown ; inside of mouth bluish fleshy ; legs pinkish brown ; claws pale horn.

Length 8·8 inches, tail 3·8, wing 3·9, tarsus ·82, bill from gape 1. The female is of the same size.

The Burmese White-throated Bulbul is generally diffused over the hills of Pegu where the vegetation is thick and evergreen. It is abundant on the eastern slopes of the Pegu hills, extending quite down to the towns of Rangoon and Pegu. On the western slopes, where the vegetation is dry, it is probably altogether absent. Capt. Wardlaw Ramsay procured it at Tonghoo and also in Karennee. Some birds, however, which I received from Mr. deWet, killed near Tonghoo, approach the Indian race *C. flaveolus*, but have the crest tipped with yellow.

In Tenasserim, according to Mr. Davison, this Bulbul is found only as far south as Meetan at the base of Mooleyit. Capt. Bingham states that it occurs in the Thoungyeen valley.

It has not yet been found outside the limits of British Burmah.

This Bulbul, which Mr. Hume first described from specimens procured by myself in the Pegu hills, is so remarkably noisy that it is not likely to escape observation. They are generally found in parties of six or more in thick forest. They fly from tree to tree, backwards and forwards, continually uttering their harsh notes, and they never descend to the ground. They appear to feed entirely on fruit. The nest of this species has not yet been found. The allied *C. flaveolus* builds a compact, shallow, cup-like nest of dead leaves bound together by roots and lined with finer roots, and places it on the branches of small trees. The eggs are salmon-pink, blotched and marked with lines of deep maroon-red.

C. flaveolus, from the Himalayas, is said by Blyth to have occurred in Arrakan and Tenasserim. In the latter province the representative species, *C. griseiceps*, occurs, which Blyth did not discriminate. It is possible that the Arrakan species may not be *C. flaveolus*, and therefore I do not enter it in this work. It is distinguished from *C. griseiceps* by having the head olive-green tinged with ochraceous (which tinge also pervades the upper plumage), by having the under surface deep yellow, and by having the

throat yellow and not white like the chin. *C. pallidus*, from Hainan, is a dull-coloured species; and *C. theoides*, Hume, which is identical with *C. finschi*, is a remarkably small *Criniger* from the Malay peninsula.

179. CRINIGER GUTTURALIS.

THE MALAYAN WHITE-THROATED BULBUL.

Trichophorus gutturalis, Bonap. *Consp. Av.* i. p. 262. **Criniger ochraceus**, Moore, in Horsf. & Moore, *Cat. Birds Mus. E.I. Co.* i. p. 252; *Bl. B. Burm.* p. 134; Hume & Dav. *S. F.* vi. pp. 301, 515. **Criniger gutturalis**, Salvad. *Ucc. Born.* p. 206; Wald. in *Bl. B. Burm.* p. 134; Hume, *S. F.* viii. p. 98; Sharpe, *Cat. Birds B. Mus.* vi. p. 80.

Description.—*Male and female.* The whole upper plumage olive-brown with an ochraceous tinge, purer on the head and upper tail-coverts; tail rufous-brown; wings brown, the outer webs edged with the colour of the tail and the tertiaries wholly of this colour; lores and round the eye greyish; ear-coverts brown with pale shafts; chin and throat white; lower plumage fulvous-brown, albescent on the centre of the abdomen and turning to clear buff on the under tail-coverts.

Legs and feet light pinkish brown; upper mandible dark horny brown; lower mandible plumbeous; irides wood-brown. (*Davison.*)

Length 8·5 inches, tail 3·8, wing 4, tarsus ·75, bill from gape 1. The female is smaller.

The Malayan White-throated Bulbul appears to be abundant in Tenasserim from its southernmost point up to Mergui. Mr. Davison subsequently procured specimens between Tavoy and Nwalabo mountain, and Captain Bingham records a specimen which he shot near Moulmein.

It extends down the Malay peninsula and is found in the islands of Sumatra and Borneo.

Mr. Davison says:—"This is eminently a forest Bulbul, never, that I am aware of, coming into gardens or clearings. In its voice and habits it resembles *C. griseiceps*, and is quite as noisy as that bird, if not more so, and like it goes about in small parties, though I have occasionally seen it in pairs or singly. This bird also never, I believe, descends to the ground."

Genus *TRICHOLESTES*, *Salvad.*180. *TRICHOLESTES CRINIGER.*

THE BRISTLE-BACKED BULBUL.

Brachypodius criniger, *Bl. J. A. S. B.* xiv. p. 577; *Wardlaw Ramsay, Tweedd. Mem., App.* p. 671. *Trichophorus minutus*, *Hartl. Journ. f. Orn.* 1853, p. 156. *Tricholestes minutus*, *Salvad. Ucc. Born.* p. 205, pl. v. f. 1. *Tricholestes criniger*, *Hume & Dav. S. F.* vi. p. 304; *Tweedd. Ibis*, 1877, p. 306; *Hume, S. F.* viii. p. 98; *Sharpe, Cat. Birds B. Mus.* vi. p. 89.

Description.—*Male and female.* Forehead and crown olive-brown, washed with yellow; hind neck, back and rump dull olive-green; wing-coverts browner; quills brown, the tertiaries and the outer webs of the others rufescent; tail rufous-brown, the outer edges tinged with greenish and the outer feathers tipped whitish; lores yellow; sides of the head yellow, the tips of the feathers more or less dusky; chin and throat whitish; lower plumage yellow, tinged with ashy on the breast and sides of the body; under tail-coverts yellow.

Legs and feet pale bluish or pinkish brown or salmon-fleshy; claws pale plumbeous blue; lower mandible and edge of upper mandible pale plumbeous; ridge of culmen and tip of upper mandible black; rest of the upper mandible dark plumbeous, sometimes a horny brown; irides vary from a pale amber or snuffy brown to dark brown. (*Davison.*)

Length 6·5 inches, tail 2·8, wing 3, tarsus ·6, bill from gape ·75. The female is smaller.

The Bristle-backed Bulbul, which is remarkable for the long hairs springing from its back, is found in the extreme southern portion of Tenasserim.

It extends down the Malay peninsula, and is found in the islands of Sumatra, Java and Borneo.

According to Mr. Davison, "this little Bulbul goes about in small parties of five or six, keeping to the brushwood and following each other about from bush to bush, uttering all the while a soft twittering note. In its habits it approaches much nearer the Timeline birds than the Bulbuls, like them hunting systematically the foliage and branches of the brushwood and smaller trees. . . . Their food consists almost exclusively of insects, though they do occasionally eat a few small berries. They are very tame birds, and their plumage is apparently never in good condition, so that it is impossible ever to make up a really good specimen of them."

Genus *ALCURUS*, *Hodgs.*181. *ALCURUS STRIATUS*.

THE STRIATED GREEN BULBUL.

Trichophorus striatus, *Bl. J. A. S. B.* xi. p. 184. *Alcurus nipalensis*, *Hodgs. in Gray's Zool. Misc.* p. 83. *Alcurus striatus*, *Jerd. B. Ind.* ii. p. 81; *Wald. in Bl. B. Burm.* p. 134; *Hume & Dav. S. F.* vi. p. 299; *Hume, S. F.* viii. p. 98; *Sharpe, Cat. Birds B. Mus.* vi. p. 91.

Description.—*Male and female.* Whole head, back and scapulars olive-green, each feather with a yellowish-white shaft-stripe; rump and upper tail-coverts brighter, with obsolete striations; tail brown, edged externally with olive-green and internally with yellowish, the three outer pairs of feathers tipped with yellow; lesser and median coverts olive-green, brownish internally and with a few obsolete striations on the smaller feathers; greater coverts and primary-coverts brown on the inner and olive-green on the outer webs; quills brown, except on the outer webs, which are almost entirely coloured olive-green; inner webs edged with yellow; lores, base of lower mandible and the chin bright yellow; throat yellow, with triangular black spots; cheeks and ear-coverts dark brown, with large yellowish-white streaks; sides of the neck, breast, abdomen and flanks yellow, each feather broadly margined with dark brown; axillaries, under wing- and tail-coverts bright yellow.

The *young* differ in having the colours much duller and less well defined.

Legs and feet very dark brown or deep plumbeous; bill black; irides deep red-brown. (*Davison.*)

Length 8·5 inches, tail 3·8, wing 4, tarsus ·8, bill from gape 1. The female is of the same size.

The Striated Green Bulbul has been observed on the Tonghoo hills in Pegu by Capt. Wardlaw Ramsay, who found it common also in the Karin hills. Mr. Davison procured it on Mooleyit, in Tenasserim, where it appears to be confined to the highest portions of the mountain.

It has been observed in the Dafla and Khasia hills in Eastern Bengal; and it inhabits the Himalayas in Sikhim and Nipal at an elevation of 7000 feet or more.

This Bulbul is said by Dr. Jerdon to keep to the tops of high trees, going in small parties, and to have a loud mellow warble uttered both when feeding and on the wing.

Genus TRACHYCOMUS, *Cabanis*.

182. TRACHYCOMUS OCHROCEPHALUS.

THE YELLOW-CROWNED BULBUL.

Turdus ochrocephalus, *Gm. Syst. Nat.* i. p. 821. **Alcurus ochrocephalus**, *Wald. Ibis*, 1872, p. 379. **Trachycomus ochrocephalus**, *Hume, S. F.* i. p. 455; *Salvad. Ucc. Born.* p. 196; *Bl. B. Burm.* p. 133; *Hume & Dav. S. F.* vi. p. 300; *Hume, S. F.* viii. p. 98; *Sharpe, Cat. Birds B. Mus.* vi. p. 93.

Description.—*Male and female.* Forehead, crown, a patch under the eye branching out into two streaks extending partially over and under the ear-coverts straw-yellow; upper plumage and lesser wing-coverts ashy brown dashed with green, all the feathers except those of the rump with conspicuous white shafts, and the upper tail-coverts margined with olive-green; greater coverts, wings and tail dark brown, margined with olive-green; ear-coverts brown, with white shafts; lores and cheeks black; chin and throat white; breast and sides of the neck ashy brown, with white shaft-streaks; sides of the body brown, with indistinct shaft-lines; abdomen and vent brownish white; thighs and under tail-coverts ochraceous; under wing-coverts and axillaries ochraceous brown.

Legs and feet dark horny brown or black; bill black; irides pale or litharge-red. (*Davison*.)

Length 11 inches, tail 4·8, wing 4·6, tarsus 1, bill from gape 1·2. The female is of about the same size.

The Yellow-crowned Bulbul has been observed in Tenasserim by Mr. Davison from Mergui down to Malewoon, where it appears to be not uncommon.

It extends down the Malay peninsula, and occurs in the islands of Sumatra, Java and Borneo.

It was observed by Mr. Davison to keep in parties of five to eight or so, and to frequent spare jungle rather than the heavy forests. It is very garrulous, and feeds chiefly on berries but occasionally on insects. On more than one occasion Mr. Davison saw this bird hopping about on the ground, an unusual thing for any of the forest Bulbuls to do.

Genus PYCNONOTUS, *Boie*.

183. PYCNONOTUS BURMANICUS.

THE BURMESE RED-VENTED BULBUL.

Pycnonotus hæmorrhous, *apud Bl. & Wald. B. Burm.* p. 135. **Molpastes pygmæus** (*Hodgs.*), *Hume, S. F.* iii. p. 126. **Molpastes intermedius** (*Hay*), *Armstrong, S. F.* iv. p. 326; *Hume, S. F.* viii. p. 98. **Pycnonotus pygæus** (*Hodgs.*), *Oates, S. F.* v. p. 157. **Pycnonotus intermedius** (*Hay*), *Oates, S. F.* v. p. 157. **Pycnonotus nigripileus** (*Bl.*), *Anders. Yunnan Exped.* p. 658. **Pycnonotus burmanicus**, *Sharpe, Cat. Birds B. Mus.* vi. p. 125; *Oates, S. F.* x. p. 211.

Description.—*Male and female.* Forehead, crown, lores, cheeks, feathers round the eye, chin and throat black; back, scapulars, rump and wing-coverts dark brown, each feather edged distinctly with whitish brown except on the rump, where, owing to the loose character of the feathers, the edgings are less defined; upper tail-coverts, which are much concealed by the rump-feathers, white, the longer ones tipped with brown with an occasional tinge of pink; tail dark brown, paler at the base, the central pair of feathers obscurely, the others distinctly tipped with white; breast blackish, each feather edged with whitish; abdomen more or less white; flanks whitish, streaked with brown; under tail-coverts crimson; wings brown, edged paler exteriorly.

Young birds are tinged with fulvous above, the cap is brown, the under tail-coverts are very pale red, and the tail is tipped with brown.

Bill and legs black; iris dark brown.

Length 8 inches, tail 3·8, wing 3·7, tarsus ·9, bill from gape ·85. The female is a little smaller.

This species approaches nearest to *P. hæmorrhous*, and differs from it in having the ear-coverts of a lighter colour, contrasting with the crown and throat, also in having the breast *blackish* edged with whitish, as against a *brownish* breast edged with whitish in *P. hæmorrhous*. The distribution of the two species, coupled with the distinctions above noted, warrant Mr. Sharpe, in my opinion, in separating the Burmese species from *P. hæmorrhous*, which occurs in Ceylon, S. India generally, and extends westwards and northwards into Scinde. The two species are moreover separated by the notably distinct species *P. pygæus*, which inhabits Bengal, the Himalayas and Central India. In this species the black is not confined to the head only, but passes on to the back, and the breast is all black without any pale edgings to the feathers. Another species, doubtfully distinct in my opinion, occurs in the north-west of India; it is close to *P. pygæus*, but differs in having the back and breast brown instead of black.

The Burmese Red-vented Bulbul occurs in every portion of Pegu, and is a very common bird. Dr. Armstrong appears, however, to have noticed it only at Elephant Point and nowhere else in the Irrawaddy Delta. Round about Rangoon it is particularly abundant. Capt. Wardlaw Ramsay observed it at Tonghoo; and probably the Sittang river is about the eastern boundary of the species. Mr. Blyth states that it occurs in Arrakan; and I have no doubt that it is as abundant in that Division as in Pegu.

It extends through the Indo-Burmese countries up to Cachar. Dr. Anderson's specimens, procured east of Bhamo, are identical with Burmese examples.

The Bulbuls of this genus are all more or less familiar birds, which frequent gardens, the neighbourhood of houses and villages and the sides of roads. The present species especially is very well known, as it visits every garden in the province and is confiding in its habits. It commences to nest in April, or perhaps earlier, and makes a rather bulky cup-shaped nest of leaves and roots, which it places in a shrub, or in a creeper, or on the low branch of a tree, in no case at any very great height from the ground. It usually lays three eggs, which are very beautifully marked with purple and red. The note of these Bulbuls is particularly cheerful and pleasant; but they cannot be said to have any thing approaching a song.

184. PYCNONOTUS ATRICAPILLUS.

THE CHINESE RED-VENTED BULBUL.

Muscicapa atricapilla, Vieill. *Nouv. Dict. d'Hist. Nat.* xxi. p. 489. **Hæmatornis chrysorrhoides**, Lafr. *Rev. Zool.* 1845, p. 367. **Molpastes chrysorrhoides**, Hume, *S. F.* ii. p. 477. **Pycnonotus atricapillus**, Wald. in *Bl. B. Burm.* p. 136; Sharpe, *Cat. Birds B. Mus.* vi. p. 127. **Ixus chrysorrhoides**, David et Oust. *Ois. Chine*, p. 142, pl. xlv. **Molpastes atricapillus**, Hume & Dav. *S. F.* vi. p. 322; Hume, *S. F.* viii. p. 99.

Description.—*Male and female.* Forehead and crown of head, lores, chin and cheeks black; throat, ear-coverts, sides of neck and whole lower plumage whity brown; under tail-coverts crimson; the ear-coverts generally tinged with pale fulvous; tail brown, paler at the base, all the feathers tipped with white; back and scapulars brown, each feather edged paler; rump plain brown; upper tail-coverts whity brown, the longer ones tipped with darker brown; wings and coverts all brown, edged on the exterior with a paler shade of the same.

Iris brown; legs and bill black.

Length 8 inches, tail 3·7, wing 3·7, tarsus ·8, bill from gape ·85. The female is smaller.

The Chinese Red-vented Bulbul is common throughout the more hilly and richly wooded portions of Tenasserim north of 13° N. lat. Capt. Bingham found it abundant in the Thoungyeen valley, and Capt. Wardlaw Ramsay procured it in Karennee at from 1000 to 2000 feet elevation.

It extends into China, and is found over the whole southern portion of that country.

This species and the next do not appear to differ in habits from *P. burmannicus*.

185. PYCNONOTUS NIGRIPILEUS.

THE TENASSERIM RED-VENTED BULBUL.

Pycnonotus nigropileus, *Bl. J. A. S. B.* xvi. p. 472; *Wald. P. Z. S.* 1866, p. 549; *Bl. B. Burm.* p. 135; *Sharpe, Cat. Birds B. Mus.* vi. p. 126. **Molpastes nigropileus**, *Hume, S. F.* iii. p. 126; *Hume & Dav. S. F.* vi. p. 321; *Hume, S. F.* viii. p. 98.

Description.—*Male and female.* Like *P. atricapillus*, differing only in having the fore neck and breast light brown, each feather margined paler like the back.

Bill and legs black; iris brown.

Length 8 inches, tail 3·8, wing 3·7, tarsus ·85, bill from gape ·85. The female is rather smaller.

The Tenasserim Red-vented Bulbul is common throughout the more open and better cultivated portions of Tenasserim north of Amherst. Capt. Wardlaw Ramsay met with it at Tonghoo and in the Karin hills. It does not appear to pass to the west of the Sittang river.

186. PYCNONOTUS ANALIS.

THE YELLOW-VENTED BULBUL.

Turdus analis, *Horsf. Trans. Linn. Soc.* xiii. p. 147. **Otocompsa personata**, *Hume, S. F.* i. p. 457, ii. p. 333. **Pycnonotus analis**, *Salvad. Ucc. Born.* p. 197; *Sharpe, Cat. Birds B. Mus.* vi. p. 140. **Pycnonotus gourdinii** (*G. R. Gray*), *Salvad. Ucc. Born.* p. 198. **Otocompsa analis**, *Hume & Dav. S. F.* vi. p. 308; *Hume, S. F.* viii. p. 98.

Description.—*Male and female.* Whole upper plumage brown, darker on the head, and the feathers somewhat paler-edged; wings and tail brown,

edged exteriorly with the colour of the back; a broad supercilium white; lores and feathers on eyelids black; ear-coverts and cheeks pale brown; chin and throat whitish; breast brown, with pale edgings; centre of abdomen whity brown; sides uniform brown; vent and under tail-coverts yellow.

Legs, feet, claws and bill black; irides wood-brown. (*Davison*.)

Length 7·8 inches, tail 3·2, wing 3·3, tarsus ·8, bill from gape ·8. The female is a trifle smaller.

The Yellow-vented Bulbul is found in Tenasserim as far north as Mergui, and appears to be abundant.

It extends through the Malay peninsula, and occurs in Sumatra, Java, Lombock and Borneo. Dr. Tiraud states that it is one of the commonest birds of Cochin China.

Mr. Davison says:—"This Bulbul is very abundant in the island of Mergui in the secondary scrub and in gardens, and wherever it occurs it keeps to such situations and avoids the forest. Its favourite haunt is open land, with just a few bushes scattered about here and there. I have repeatedly seen it on the ground hopping about. It feeds largely on insects, such as grasshoppers &c., and also on berries and fruit; and I have seen it clinging to mangoes and pecking away at the fruit. Its note is extremely like that of *Otocompsa emeria*—'kick, kick, pettigrew.' In life this bird has a particularly knowing look, and is one of the prettiest birds of the open lands. It is usually found singly or in pairs, though often half a dozen or more may be seen seated about the bushes near each other, looking as if they all belonged to one flock or party; but I do not think they act in concert or ever go in flocks. They are not shy."

187. PYCNONOTUS FLAVESCENS.

BLYTH'S BULBUL.

Pycnonotus flavescens, *Bl. J. A. S. B.* xiv. p. 568; *Anders. Yunnan Exped.* p. 659; *Sharpe, Cat. Birds B. Mus.* vi. p. 143. **Ixus flavescens**, *Bl. & Wald. B. Burm.* p. 134; *Hume & Dav. S. F.* vi. p. 306; *Hume, S. F.* viii. p. 98.

Description.—*Male and female.* Forehead and crown brown, each feather edged with olive-yellow; upper plumage and wing-coverts olive-brown, tinged with yellow; lores dark brown, with a whitish line above them; sides of the head greenish brown; lower plumage washed with yellow and the feathers of the breast with darker streaks; vent and under tail-coverts deep yellow; wings and tail brown, edged with olive-yellow.

The plumage of this species is extremely variable, according to the state

in which the feathers are. The above description is taken from a newly moulted bird.

The legs, feet and claws vary from very dark reddish or purplish brown to black; the bill black; irides brown to deep red-brown. (*Davison*.)

Length 8·5 inches, tail 4·2, wing 3·5, tarsus ·85, bill from gape ·8. The female is rather smaller.

Blyth's Bulbul is found in the hilly portions of Tenasserim as far south, according to Mr. Davison, as a point halfway between Mooleyit and Paraduba. Capt. Wardlaw Ramsay procured it in the Tonghoo hills and in Karennee at elevations from 2500 to 4000 feet, and he states that it is very common in the Karin hills. In Tenasserim it does not appear to be found higher than 4500 feet elevation.

I have never met with it in Pegu. Mr. Blyth records it from Arrakan; Dr. Anderson procured it near Bhamo, and Col. Godwin-Austen in the Khasia hills.

Nothing peculiar is noted of its habits. Mr. Davison states that it avoids the denser portions of the forest, and keeps to their outskirts or to scrub-jungle. He has never seen them descend to the ground or even into any very low brushwood.

188. PYCNONOTUS FINLAYSONI.

FINLAYSON'S BULBUL.

Pycnonotus finlaysoni, *Strickl. Ann. Nat. Hist.* ser. 1, xiii. p. 411; *Wald. P. Z. S.* 1866, p. 549; *Sharpe, Cat. Birds B. Mus.* vi. p. 144. ***Ixus finlaysoni***, *Hume, S. F.* iii. p. 301; *Hume & Dav. S. F.* vi. p. 307; *Hume, S. F.* viii. p. 98.

Description.—*Male and female.* Forehead and head as far back as the eyes bright yellow; lores black; above the lores a narrow orange line; cheeks, ear-coverts, throat, chin and upper neck grey with bright yellow streaks; crown and nape deep grey, the centres of the feathers paler; upper plumage and wing-coverts olive-green, the back washed with ashy; wings dark brown, broadly edged with olive-green on the outer webs; tail olive-green, brighter on the outer webs; breast, upper part of abdomen and the flanks dark ashy, the shafts paler; centre of abdomen yellowish grey; vent and under tail-coverts bright yellow; edge of wing, under wing-coverts and axillaries also yellow.

Bill bluish black, paler at the gape; mouth dark flesh-colour; iris pale brown; eyelids dark plumbeous; legs dusky plumbeous; claws dark brown.

Length 7·6 inches, tail 3·3, wing 3·2, tarsus ·8, bill from gape ·85. The female is of the same size.

Finlayson's Bulbul is abundant over the whole of Tenasserim and that portion of Pegu which lies to the east of the Sittang river. This stream appears to be its western limit. Capt. Wardlaw Ramsay procured it in the Tonghoo and Karin hills. I found it abundant in the well-wooded tracts of country south of Shwaygheen.

Mr. Blyth states that it occurs in Arrakan. I think that this is improbable. If any Bulbul of this type inhabits Arrakan it is probably *P. davisoni*.

The present species ranges down the Malay peninsula as far as Malacca, and it extends into Siam and Cochin China.

The habits of this Bulbul, as far as I had an opportunity of observing them, were the same as those of the next species.

189. PYCNONOTUS DAVISONI.

DAVISON'S BULBUL.

Ixus davisoni, *Hume, S. F.* iii. p. 301, iv. p. 498; *Armstrong, S. F.* iv. p. 324; *Oates, S. F.* vii. p. 47; *Hume, S. F.* viii. p. 98; *Oates, S. F.* x. p. 209. ***Ixus annectens***, *Wald. Ann. Nat. Hist.* ser. 4, xv. p. 401; *Hume, S. F.* iii. p. 404; *Wald. in Bl. B. Burm.* p. 134; *Wardlaw Ramsay, Ibis*, 1877, p. 466. ***Pycnonotus davisoni***, *Sharpe, Cat. Birds B. Mus.* vi. p. 145.

Description.—*Male and female.* Like *P. finlaysoni*, but differing in the following respects :—The whole head from the forehead to the nape is cinereous, each feather edged with greenish yellow; the yellow streaks on the cheeks and throat are paler and do not extend so low down on the breast; the lores are brown; the irides are pale yellow.

Iris pale yellow; bare ophthalmic skin and eyelids dark purplish; mouth flesh-colour; bill dark brown; legs dark plumbeous; claws horn-colour.

Length 7·7 inches, tail 3·2, wing 3·3, tarsus ·8, bill from gape ·85. The female is of about the same size.

Davison's Bulbul is confined to the southern portion of Pegu. I have found it very abundant at Rangoon and on the road leading from that town to Pegu; also at Kyeikpadein and near the Sittang river, which appears to be its eastern limit. Dr. Armstrong met with it at Elephant Point and Mr. Blanford at Bassein.

This Bulbul is a bird of the cultivated parts of the country, being usually found in gardens, clearings and the neighbouring scrub-jungle. I was with Mr. Davison when he procured his first specimen of this bird. It was shot in the low jungle which surrounds the Sanjewah bungalow on the Prome road about 14 miles out of Rangoon. It is just this sort of jungle

that this Bulbul likes. It has a pleasant, cheerful note, and where one bird is seen others will generally be found, but each acts independently.

I found two nests of this Bulbul near Kyeikpadein at the commencement of June. One was placed in a bush and the other in a creeper about four feet from the ground. The nests were flimsy, shallow cups made of dry weeds and lined with grass and contained two eggs each. The eggs are pinkish white marked with red and purple.

190. PYCNONOTUS BLANFORDI.

BLANFORD'S BULBUL.

Pycnonotus blanfordi, *Jerd. Ibis*, 1862, p. 20; *Anders. Yunnan Exped.* p. 659; *Sharpe, Cat. Birds B. Mus.* vi. p. 151. **Pycnonotus familiaris**, *Bl. J. A. S. B.* xxxi. p. 343. **Microtarsus blanfordi**, *Hume, S. F.* iii. p. 125. **Ixus blanfordi**, *Bl. B. Burm.* p. 134; *Oates, S. F.* v. p. 156; *Hume, S. F.* viii. p. 98; *Oates, S. F.* x. p. 210.

Description.—*Male and female.* Cheeks and throat dull white; ear-coverts silvery white; lores greyish, tinged with fulvous; the whole upper plumage and tail olive-brown, the forehead paler and the feathers of the forehead and crown dark-centred; wing of the same colour as the upper parts, the outer webs narrowly margined with dull fulvous-yellow; neck and breast brownish grey mingled with a good deal of fulvous; abdomen, sides of the body, under wing- and tail-coverts nearly pure fulvous, brighter on the coverts.

The plumage varies very much according to the time of the year. The above description is drawn up from a freshly moulted bird.

The iris varies from yellowish brown to red; eyelids plumbeous; bill brown, paler at the base of the lower mandible and gape; mouth flesh-colour; legs plumbeous; claws horn-colour.

Length 7·7 inches, tail 3·2, wing 3·2, tarsus ·85, bill from gape ·85. The female is of much the same size.

Blanford's Bulbul is found all over Pegu except on the higher hills and in the deep forests of the plains. Capt. Wardlaw Ramsay states that it is common in the Karin hills in small flocks. It has not yet been found in Arrakan or Tenasserim.

It is a very common and familiar bird, frequenting gardens and the outskirts of cultivation. It has an excessively harsh note. I have very frequently found its nest in the neighbourhood of Pegu. It begins to breed at the commencement of April and builds a shallow, loosely constructed, cup-shaped nest of small twigs lined with grass, and lays three eggs. The nest is placed in bushes at no great height from the ground. The eggs are pink marked with purplish red.

191. PYCNONOTUS PLUMOSUS.

THE LARGE OLIVE BULBUL.

Pycnonotus plumosus, *Bl. J. A. S. B.* xiv. p. 567; *Salvad. Ucc. Born.* p. 198; *Sharpe, Cat. Birds B. Mus.* vi. p. 152. **Brachypus plumosus**, *Tweedd. Ibis*, 1877, p. 307. **Ixus plumosus**, *Hume & Dav. S. F.* vi. p. 309; *Hume, S. F.* viii. p. 98.

Description.—*Male and female.* Chin and throat dull white; upper plumage olive-brown, darker on the head, the feathers edged with olive-green; cheeks and ear-coverts brown, the shafts whitish; lower plumage earthy brown, darker on the sides of the breast and flanks and tinged throughout with yellow; under tail-coverts buff; quills and coverts brown, the outer webs broadly edged with rather bright olive-green; tail brown, the outer webs of the feathers suffused with olive-green; under wing-coverts and edge of wing buff.

Legs and feet reddish brown, darker in some, paler in others; bill almost black; irides varying from burnt-sienna brown to dark cinnabar-red. (*Davison.*)

Length 7·8 inches, tail 3·3, wing 3·5, tarsus ·85, bill from gape ·85. The female is of about the same size.

The Large Olive Bulbul inhabits the southern portion of Tenasserim as far north as Pabyin, which is a village close to Mergui. Mr. Davison states that it is not a common bird.

It extends down the Malay peninsula and is found in Sumatra and Borneo. Dr. Tiraud states that it is common in Cochin China.

According to Mr. Davison this Bulbul keeps chiefly to the forests, and it does not appear ever to descend to the ground.

192. PYCNONOTUS SIMPLEX.

MOORE'S OLIVE BULBUL.

Pycnonotus simplex, *Less. Rev. Zool.* 1839, p. 167; *Sharpe, Cat. Birds B. Mus.* vi. p. 153, pl. ix. **Pycnonotus brunneus**, *Bl. J. A. S. B.* xiv. p. 568. **Pycnonotus modestus**, *Bl. J. A. S. B.* xiv. p. 568. **Microtarsus olivaceus**, *Moore, in Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 249. **Ixus brunneus**, *Hume, S. F.* iii. p. 322; *Hume & Dav. S. F.* vi. p. 312; *Hume, S. F.* viii. p. 98.

Description.—*Male and female.* Head and whole upper plumage uniform olive-brown; tail rufescent olive-brown; whole lower surface earthy brown suffused with yellow, paler on the chin and throat and darker on the flanks.

and abdomen; under tail-coverts buff; quills brown, edged on the outer webs with the same colour as the back; ear-coverts like the upper plumage and with the shafts not appreciably lighter.

This species differs from *P. plumosus* in having the tail and wings margined with brown instead of olive-green, in having the chin and throat not white but of the same colour as the breast, in the feathers of the ear-coverts not being pale-shafted, in the absence of olive-green margins to the feathers of the upper plumage, and, lastly, in being smaller.

Legs and feet fleshy or reddish brown, in some lighter, in some darker; the upper mandible dark horny brown; the lower mandible somewhat paler; the irides vary, orange-red, pale red, whity pink. (*Davison*.)

Length 7 inches, tail 3·2, wing 3·2, tarsus ·75, bill from gape ·8. The female is of about the same size.

Moore's Olive Bulbul appears to have the same distribution in Tenasserim as the preceding species, Pabyin being the most northern locality where Mr. Davison procured it. It is sparingly distributed in well-wooded tracts.

It extends down the Malay peninsula, and occurs in the islands of Sumatra, Java and Borneo.

In habits it resembles the preceding species, to which it also bears such a similarity of coloration.

193. PYCNONOTUS SALVADORII.

THE SMALL OLIVE BULBUL.

Pycnonotus pusillus, *Salvad. Ucc. Born.* p. 200; *Sharpe, Cat. Birds B. Mus.* vi. p. 155, pl. x. **Ixus pusillus**, *Hume & Dav. S. F.* vi. p. 312; *Hume, S. F.* viii. p. 98. **Pycnonotus salvadorii**, *Sharpe, Cat. Birds B. Mus.* vi. p. 401.

Description.—*Male and female.* The whole upper plumage, wing-coverts and tail olive-brown, tinged with rufescent on the rump, upper tail-coverts and tail; wings brown, the outer webs washed with the colour of the back; lores and sides of the head ashy brown; chin and throat ashy white; breast and sides of the body ashy brown washed with yellow; abdomen, vent and under tail-coverts dusky yellow; under wing-coverts and axillaries pale ochraceous yellow.

Legs, feet and claws pale reddish horny; irides crimson; bill black; gape and base of lower mandible, shelf above nostrils and ophthalmic ring vivid orange-yellow. (*Davison*.)

Length 6·5 inches, tail 3, wing 3, tarsus ·6, bill from gape ·75. The female is rather smaller.

The Small Olive Bulbul has been procured only in the extreme south of Tenasserim, where Mr. Davison says it is very rare.

It extends down the Malay peninsula, and occurs in the islands of Sumatra and Borneo.

Mr. Davison states that this Bulbul has the same habits as the two preceding species, and that in life and when freshly killed it is to be easily recognized by its bright orange-red ophthalmic ring.

P. sinensis, from China, is a pretty species with a white semicircle extending from eye to eye round the nape. *P. hainanus*, from Hainan, is somewhat like *P. plumosus*, but has the top of the head deep black. *P. xanthorrhous*, which has been procured in Yunnan, has a black head and the under tail-coverts are a beautiful golden yellow; and a species allied to this is *P. germaini*, from Cochin China. The genus *Spizixus* contains three species remarkable for their short and stout bill, and for having the nostrils covered by the frontal plumes. One species, *S. canifrons*, has been found in the Khasia hills, and the other two are Chinese forms.

Genus OTOCOMPSA, *Cabanis*.

194. OTOCOMPSA JOCOSA.

THE RED-WHISKERED BULBUL.

Lanius jocosus, *Linn. Syst. Nat.* i. p. 138. **Ixus monticola**, *MacClell. P. Z. S.* 1839, p. 160. **Otocompsa jocosus**, *Jerd. B. Ind.* ii. p. 92; *Sharpe, Cat. Birds B. Mus.* vi. p. 159. **Otocompsa emeria** (*Linn.*), *Hume, Nests and Eggs*, p. 287; *Hume, S. F.* ii. p. 225, iii. p. 126; *Armstrong, S. F.* iv. p. 325; *Oates, S. F.* v. p. 157; *Anders. Yunnan Exped.* p. 657; *Hume & Dav. S. F.* vi. p. 321; *Cripps, S. F.* vii. p. 280; *Hume, S. F.* viii. p. 98. **Otocompsa monticola** (*McClell.*), *Bl. & Wald. B. Burm.* p. 135. **Ixus jocosus**, *Dav. et Oust. Ois. Chine*, p. 142.

Description.—*Male and female.* The forehead and summit of head, the lores, the feathers under the eye and a narrow moustachial streak passing under the ear-coverts to the back of the head black; cheeks and ear-coverts white; a tuft of feathers springing from under the eye and reaching to the ends of the ear-coverts crimson; sides of the neck and a patch on either side of the breast brownish black; the whole under plumage white except the under tail-coverts which are crimson, and the flanks and thighs which are hair-brown; the edge of the wing pink; upper plumage and wings earthy brown; tail dark brown, all but the central pair of feathers tipped with white.

The *young bird* has no crimson tuft on the head, the head is dark brown, the plumage is fulvous and the under tail-coverts are pinkish brown.

Iris hazel-brown; mouth yellow; bill, legs and claws black.

Length 7·6 inches, tail 3·2, wing 3, tarsus ·8, bill from gape ·85. The female is of about the same size.

The Red-whiskered Bulbul is one of the best-known birds of Burmah, being very extensively distributed throughout the country. It abounds in the whole of Pegu except in the portion lying between Prome and Thayetmyo, where it is very rare or absent altogether. It is common throughout Tenasserim, and Capt. Wardlaw Ramsay notes it from Karennee. Although not yet recorded from Arrakan, it is doubtless extremely common over the whole Division.

To the south of Burmah it extends down the Malay peninsula to Penang or further.

It is diffused over Cochin China and Southern China, the Indo-Burmese countries and almost the whole peninsula of India and the Andaman Islands. In the south of India and in Ceylon it is replaced by the true *O. emeria*, a species which resembles the present one, but has no white tips to the tail-feathers.

This pretty Bulbul is a very familiar bird, being more frequently seen in gardens and cultivated ground than elsewhere. It is not found much in dense forest, but there are few parts of Pegu where its lively note may not be heard at some time or other of the day.

It commences to breed in February and builds a rather solid cup-shaped nest of twigs and leaves, which it places in bushes and tangled thickets, and it lays three eggs, which are pinkish white marked with various shades of red.

195. OTOCOMPSA FLAVIVENTRIS.

THE BLACK-CRESTED YELLOW BULBUL.

Vanga flaviventris, Tickell, *J. A. S. B.* ii. p. 573. **Rubigula flaviventris**, Jerd. *B. Ind.* ii. p. 88; *Bl. B. Burm.* p. 136; *Hume, S. F.* iii. p. 125; *Armstrong, S. F.* iv. p. 324; *Hume & Dav. S. F.* vi. p. 317; *Hume, S. F.* viii. p. 98; *Scully, S. F.* viii. p. 295; *Bingham, S. F.* ix. p. 182. **Pycnonotus flaviventris**, Hume, *Nests and Eggs*, p. 285. **Otocompsa flaviventris**, Sharpe, *Cat. Birds B. Mus.* vi. p. 161.

Description.—*Male and female.* Whole head, chin and throat black; sides of neck and lower plumage yellow; upper plumage and wing-coverts olive-yellow; primaries and secondaries brown, with olive-yellow edgings on the outer webs; tertiaries brown on the inner, and olive-yellow on the outer webs; tail brown, with an edging of olive-yellow on the outer webs, disappearing towards the tips.

Iris pale yellow; eyelids yellowish fleshy; bill dark brown; mouth fleshy yellow; legs brown; claws dark horn.

Length 7·6 inches, tail 3·5, wing 3·3, tarsus ·65, bill from gape ·73. The female is very slightly smaller.

The Black-crested Yellow Bulbul is common throughout Pegu both in the hills and the plains. Capt. Wardlaw Ramsay observed it Karennee. It appears to be spread throughout the whole of Tenasserim, and to be common there, except in the higher hills, where Mr. Davison did not notice it. Mr. Blyth records it from Arrakan.

It ranges into Cochin China and necessarily into Siam. It is found in the Indo-Burmese countries, the Eastern Bengal hills, and the Himalayas up to Nipal, and it has also been procured in the forests of Central India.

This Bulbul is a conspicuous bird, and when met with is not easily overlooked. Although not quite a garden bird, it is fond of orchards, compounds and roadsides. Great numbers may be frequently seen on a fruit-bearing tree, such as a peepul. Capt. Bingham found the nest in Tenasserim in April. It was in a bush, three feet from the ground, and was made of twigs and roots and lined with grass. It was a cup-shaped structure, and contained three eggs; they were white marked with pink and claret-red.

Genus RUBIGULA, *Blyth*.

196. RUBIGULA CYANIVENTRIS.

THE GREY-BREASTED BULBUL.

Pycnonotus cyaniventris, *Bl. J. A. S. B.* xi. p. 792. **Ixidia cyaniventris**, *Hume & Dav. S. F.* vi. p. 320; *Hume, S. F.* viii. p. 98. **Rubigula cyaniventris**, *Sharpe, Cat. Birds B. Mus.* vi. p. 169.

Description.—*Male and female.* The whole head and lower plumage deep slaty blue; lores black; forehead and a streak over the lores paler slaty; under tail-coverts bright yellow; upper plumage and wing-coverts bright greenish yellow; tail dark brown, the outer webs, except near the tips, chiefly greenish yellow; quills dark brown, all but the first two primaries broadly edged with greenish yellow, and the tertiaries wholly of this colour; under wing-coverts pale sulphur-yellow.

Legs and feet very dark plumbeous; claws horny brown, almost black; bill black; irides dark brown, dark plumbeous slate, and grey-brown. (*Davison*.)

Length 6·3 inches, tail 2·6, wing 3, tarsus ·6, bill from gape ·75. The female is rather smaller.

R. webberi, Hume, from Tonka in the Malay peninsula, has the feathers of the breast black edged with white, and the tail-feathers tipped with white. It is not unlikely to occur in Tenasserim.

The Grey-breasted Bulbul appears to be but a rare straggler into the extreme southern portion of Tenasserim, where Mr. Davison got only one specimen. It is common in the Malay peninsula, and also occurs in Sumatra.

According to Mr. Davison it is a Bulbul of rather shy habits, and on being disturbed beats a retreat to the forest or to other dense cover. Its note is a sharp lively chirrup. They appear to live entirely on small berries.

Subfamily ÆGITHININÆ.

Genus ÆGITHINA, Vieill.

197. ÆGITHINA VIRIDISSIMA.

THE GREEN DWARF BULBUL.

Iora viridissima, Bonap. Consp. Av. i. p. 307; Salvad. Ucc. Born. p. 192; Hume, S. F. v. p. 427; Hume & Dav. S. F. vi. p. 327; Hume, S. F. viii. p. 99. *Ægithina viridissima*, Tweedd. Ibis, 1877, p. 304, pl. v.; Sharpe, Cat. Birds B. Mus. vi. p. 6.

Description.—*Male*. The whole plumage dark green, becoming yellow on the lower abdomen and vent; lores blackish; feathers immediately above and below the eyes bright yellow; under tail-coverts pure yellow; under wing-coverts white; tail glossy black; wing-coverts black, broadly tipped with white, which forms two wing-bars; quills black, all narrowly edged with green; the tertiaries also broadly edged on both webs with white.

The *female* has the upper plumage dark green, almost as dark as in the male; the tail green, paler than the back, and narrowly edged with yellow; the lores and sides of the head are greenish yellow, and consequently the yellow edging is not so conspicuous as in the male; the whole lower plumage light yellowish green; wing-coverts brown, broadly tipped and edged with pale yellow; quills blackish brown, edged with greenish yellow.

Legs and feet plumbeous blue; claws black; lower mandible, gape and a line on each side of upper mandible dark plumbeous blue; rest of upper mandible black or blackish brown; irides dark to reddish brown. (*Davison*.)

Length 5 inches, tail 1·8, wing 2·4, tarsus ·7, bill from gape ·75. The female is of the same size.

From the large series of these birds I have been able to examine in the British Museum, it appears that there is no seasonal change of plumage.

Æ. scapularis from Java has the plumage a light yellow without the black head. The sexes are alike, and the male has the tail green at all seasons.

Æ. viridis has the forehead brilliant yellow, the upper plumage rather dark greenish yellow, and the tail black; it never has any black on the head or back. It occurs in Sumatra and Borneo. The female is very like the female of *Æ. tiphia*.

The Green Dwarf Bulbul has occurred as a rare straggler in the southern portion of Tenasserim. Mr. Davison procured one specimen at Mergui in June.

It occurs throughout the Malay peninsula and in Borneo and Sumatra.

It is found in brushwood and eats insects. According to Mr. Davison the note is similar to that of *Æ. tiphia*.

198. ÆGITHINA TIPHIA.

THE COMMON DWARF BULBUL.

Motacilla tiphia, Linn. *Syst. Nat.* i. p. 331. *Motacilla zeylonica*, Gm. *Syst. Nat.* i. p. 964. *Iora zeylonica*, Jerd. *B. Ind.* ii. p. 101. *Iora typhia*, Jerd. *B. Ind.* ii. p. 103; *Bl. & Wald. B. Burm.* p. 137; *Hume, S. F.* v. p. 428; *Anders. Yunnan Exped.* p. 660; *Legge, Birds Ceylon*, p. 490; *Hume, S. F.* viii. p. 99. *Ægithina tiphia*, *Hume, Nests and Eggs*, p. 295; *Oates, S. F.* v. p. 157; *Sharpe, Cat. Birds B. Mus.* vi. p. 7.

Description.—*Male in summer.* Lores, forehead, crown and back black, the bases of the feathers on the back yellow and showing through the black; rump greenish yellow; upper tail-coverts and tail black; lesser wing-coverts black; median ones white; greater ones black, tipped with white; quills black, narrowly edged with pale yellow; sides of the head and neck, chin, throat and breast deep intense yellow; abdomen, sides, vent and under tail-coverts dull greenish yellow. The back is sometimes yellow merely fringed with black, and the head is sometimes not quite black but yellow much mixed with black.

Female. Upper plumage green; the tail greener and duskier, the edges yellowish; lesser wing-coverts green; median coverts dusky green, broadly tipped with white; greater coverts dusky green, the outer ones broadly tipped with white, the inner one broadly edged with white on the outer

webs ; quills dark brown, edged with pale yellow ; lores, sides of the head and entire under plumage yellow.

The *male in winter* loses all black above except on the tail and wings. Males which are not mature appear to want the black also both on the wings and tail.

Iris yellowish white ; lower mandible and the margins of the upper nearly to the tip blue ; remainder of upper mandible black ; feet and claws plumbeous.

Length 5·4 inches, tail 2, wing 2·4, tarsus ·75, bill from gape ·7. The female is of the same size.

The changes of plumage in this species and its races throughout the Indian continent and Burmah are little understood. The subject has been exhaustively treated by Messrs. Hume and Sharpe ; and I am not able to throw any further light upon the subject. The birds which occur in Burmah are mostly, as far as the males are concerned, intermediate between *Æ. zeylonica* and *Æ. tiphia*—that is to say, there is usually a considerable amount of black on the upper plumage. The adult male in the breeding-months has almost invariably the whole crown black, and generally a considerable portion of the back. Those birds which are not black on these parts in summer are, in my opinion, males which are not mature ; they breed, but they have not reached the final stage of plumage, which probably takes two or three years to acquire ; and consequently birds in this immature plumage are most frequently met with.

The Common Dwarf Bulbul is abundant throughout Arrakan, Pegu and Tenasserim, not, however, ascending the hills to any great height. Capt. Wardlaw Ramsay also met with it in Karennee.

Out of Burmah it is spread over the peninsula of India (except in the north-western portions, where an allied species, *Æ. nigrolutea*, replaces it) and Ceylon. It is common in the Indo-Burmese countries, Siam and Cochin China ; and it extends down the Malay peninsula to Singapore.

This pretty bird frequents orchards, low trees and brushwood, feeding on insects which are found among the leaves. It commences to breed in May, or probably earlier, making a beautiful cup-shaped nest of very small size, which it fixes in the fork or on the bough of a small tree at no great height from the ground. The nest is made of fine fibres and grass, and coated outside with cobwebs. The eggs, usually three in number, are greyish white, streaked with brown and reddish brown.

Genus AETHORHYNCHUS, *Sundev.*

199. AETHORHYNCHUS LAFRESNAYII.

THE GREAT DWARF BULBUL.

Iora lafresnayeii, *Hartl. Rev. Zool.* 1844, p. 401; *Bl. & Wald. B. Burm.* p. 137; *Hume, S. F.* v. p. 423; *Hume & Dav. S. F.* vi. pp. 328, 516; *Hume, S. F.* viii. pp. 63, 99. *Iora innotata*, *Bl. J. A. S. B.* xvi. p. 472. *Phœnicomanes iora*, *Sharpe, P. Z. S.* 1874, p. 427, pl. liv. *Aethorhynchus lafresnayii*, *Sharpe, Cat. Birds B. Mus.* vi. p. 14.

Description.—Lores, the feathers round the eye, cheeks, sides of the neck and the whole lower plumage bright yellow; the forehead tinged with yellow; crown, nape and back greenish yellow, the feathers terminated with black; rump black, the feathers extremely long and fluffy and tipped with yellow; tail and wings black, the primaries narrowly edged with yellow.

In November the legs, feet and claws were dull smalt-blue, and so were the lower mandible, gape and edges of the upper mandible, the rest of this latter being blackish brown.

In June and July specimens the legs and feet were clear lavender-blue; the lower mandible and a broad line on each side of the upper mandible pale blue, the rest of the latter black. (*Davison.*)

Length 6 inches, tail 2·3, wing 2·8, tarsus ·85, bill from gape 1.

The above description is taken from the only bird of this species in the British Museum, the type of Mr. Sharpe's *Phœnicomanes iora*.

The males in summer appear to be entirely black above; in winter they become greenish yellow above, including the tail. The females at all seasons appear to resemble the male in winter plumage.

The Great Dwarf Bulbul is a rare bird in Burmah, except in the extreme southern portion of Tenasserim. Mr. Blyth records it from Arrakan. I have never met with it in Pegu. Capt. Bingham found it in the Thoungyeen valley in February; and Mr. Davison procured it from April to November at Mergui and Bankasoon. Colonel Tickell, in his MS. notes on Indian birds, figures a specimen which he procured at Aseen near Ye, in Tenasserim, a point much further north than the localities quoted by Mr. Hume.

It extends down the Malay peninsula as far at least as Malacca.

In habits this species does not appear to differ from the Common Dwarf Bulbul. It goes about in couples or singly, searching the leaves of trees, and has a fine whistling call.

An allied species, *Ae. xanthotis*, with yellow ear-coverts and yellow tips to the wing-coverts, occurs in Cambodia and is not unlikely to be found in Tenasserim.

Genus CHLOROPSIS, *Jard. & Selby*.

200. CHLOROPSIS AURIFRONS.

THE GOLD-FRONTED GREEN BULBUL.

Phyllornis aurifrons, *Temm. Pl. Col.* 484. f. 1; *Jerd. B. Ind.* ii. p. 99; *Hume, S. F.* iii. p. 129; *Anders. Yunnan Exped.* p. 660; *Hume & Dav. S. F.* vi. p. 326; *Hume, S. F.* viii. p. 99. **Phyllornis hodgsoni**, *Bl. & Wald. B. Burm.* p. 137. **Chloropsis aurifrons**, *Sharpe, Cat. Birds B. Mus.* vi. p. 20.

Description.—*Male.* Forehead and front of crown orange-yellow; lores, round eye, ear-coverts and lower throat black; chin, cheeks and upper throat purplish blue; a supercilium continued down the sides of the neck, widening and passing round the black of the throat, forming a collar, yellow; lesser wing-coverts and bend of the wing cobalt-blue; the whole remaining visible portions of the plumage bright green, the concealed portions of the primaries and secondaries in the closed wing dark brown.

The *female* hardly differs from the male, except in being rather less brilliant in coloration.

The *young* are entirely green on the head; a small moustachial blue streak is present, and the edgings to the wing are bluish; the tail is also tinged with blue.

Bill black; mouth bluish grey; eyelids dark brown; feet plumbeous; iris brown; claws horn-colour. The female has the mouth livid brown.

Length 7·7 inches, tail 2·8, wing 3·8, tarsus ·7, bill from gape 1. The female is of the same size.

The Gold-fronted Green Bulbul is spread throughout Arrakan and Pegu, but appears to be confined to the plains and lower hills. In Tenasserim, according to Mr. Davison, it is common as far south as Amherst; and Capt. Bingham states that it is abundant in the Thoungyeen valley. Capt. Wardlaw Ramsay procured it in Karennee.

It is doubtful whether this species, as asserted, occurs in the Malay peninsula and Sumatra; but it extends easterly to Cambodia and Cochin China.

To the north it is diffused through the Indo-Burmese countries, Bengal and the sub-Himalayan region up to the Jumna river.

This species is the best known of the genus, all the members of which have the same habits. They are solitary or go in pairs when feeding, and their food consists of the various insects which infest leaves. They search the leaves assiduously, and the colour of their plumage causes them to be little noticed. The male bird frequently sits on the summit of a tree and gives utterance to a series of notes which at times becomes a rather sweet

song ; but the ordinary note is harsh. They feed a good deal on fruit and the nectar of flowers ; and any large flower-bearing tree will usually contain several of these birds. They are not at all shy, and they may be met with in gardens and compounds just as frequently as in deep forests.

The nest of *C. aurifrons* does not appear ever to have been found. *C. jerdoni*, an Indian species, builds a shallow cup-shaped nest, made of fine roots and fibres, in the fork of a branch at its extreme end about twenty feet from the ground. The eggs, generally only two in number, are white marked with reddish and purplish brown.

201. CHLOROPSIS HARDWICKII.

THE ORANGE-BELLIED GREEN BULBUL.

Chloropsis hardwickii, *Jard. & Selby, Ill. Orn.* ii. App. p. 1 ; *Sharpe, Cat. Birds B. Mus.* vi. p. 18. **Phyllornis hardwickii**, *Jerd. B. Ind.* ii. p. 100 ; *Bl. B. Burm.* p. 137 ; *Hume & Dav. S. F.* vi. p. 327 ; *Hume, S. F.* viii. p. 99 ; *Scully, S. F.* viii. p. 297.

Description.—*Male.* Upper plumage green, washed with fulvous-yellow on the head ; lores, the feathers under the eye, the ear-coverts, chin, throat and upper breast black ; a broad moustachial streak reaching to the end of the ear-coverts cobalt ; remainder of the under plumage orange, washed with green on the flanks ; tail dull purple, the inner webs blacker ; lesser wing-coverts verdigris-blue ; remaining coverts and the primaries black, edged with purple ; secondaries brown on the inner, and green on the outer webs ; tertiaries and inner greater coverts entirely green.

The *female* has the upper plumage green, the head being of the same colour as the other parts ; lesser wing-coverts blue ; the other coverts and the tertiaries wholly green ; secondaries and primaries brown edged with green, the first three primaries with a tinge of blue ; tail green ; moustachial streak cobalt, but paler than in the male ; sides of head and neck, chin, throat and upper breast with the whole of the flanks green, tinged with blue on the throat ; lower breast, abdomen, vent and under tail-coverts orange.

Young birds are entirely green without any orange below at first ; traces of orange on the abdomen soon make their appearance ; the moustache and wing-patch are barely indicated.

Bill black ; irides brown or dark brown ; feet plumbeous ; claws dusky or black. (*Scully.*)

Length 7·5 inches, tail 3·1, wing 3·8, tarsus ·7, bill from gape ·95. The female is of the same size.

C. lazulina, from China, is barely separable from the present species ; it has the chin, throat and breast strongly suffused with blue.

The Orange-bellied Green Bulbul, according to Mr. Blyth, occurs in Arrakan. Capt. Wardlaw Ramsay procured it in the Tonghoo hills and in Karennee at elevations of from 3500 to 4000 feet. I have never myself seen it in Pegu. In Tenasserim it appears to be confined to Mooleyit mountain and its spurs, where, from the fact of Mr. Davison procuring five specimens, it would appear to be not uncommon.

Out of Burmah it has been found in the hills of Eastern Bengal and Assam, and it extends along the Himalayan range to Nipal.

202. CHLOROPSIS ZOSTEROPS.

THE MALACHITE-SHOULDERED GREEN BULBUL.

Chloropsis zosterops, Vigors, *App. Mem. Life Raff.* p. 674; Sharpe, *Cat. Birds B. Mus.* vi. p. 24. **Phyllornis sonneratii**, *apud Salvad. Ucc. Born.* p. 193. **Phyllornis javensis** (Horsf.), *apud Bl. B. Burm.* p. 136; Hume & Dav. *S. F.* vi. p. 324; Hume, *S. F.* viii. p. 99.

Description.—*Male.* The whole upper plumage, wing-coverts and tertiaries bright green; a patch on the lesser wing-coverts malachite-green; primaries and secondaries dark brown, broadly edged with bright green; tail green, the inner webs of all but the central pair of feathers brown towards the outer edge; feathers above the nostrils, the lores and a line produced narrowly over the eye, the cheeks, chin and throat black; ear-coverts and a band along the black of the throat on either side a paler green than the upper plumage; a short, narrow moustache cobalt; lower plumage bright green.

The *female* has no black on the throat; the chin and throat and a ring round the eye are bright yellow, and the moustachial streak is blue and indistinct.

Young birds resemble the female.

Legs, feet and claws pale to dark plumbeous; bill black; base of lower mandible sometimes brown; irides vary—brown, dark wood-brown, lake or crimson; eyelids blackish grey. (*Davison.*)

Length 8·5 inches, tail 3, wing 3·9, tarsus ·75, bill from gape 1·1. The female is of about the same size.

The closely allied *C. viridis* or *C. javensis*, Horsf., from Java, may be distinguished by the colour of the shoulder-patch, which is turquoise-blue.

The Malachite-shouldered Green Bulbul is sparingly distributed throughout the central and southern portions of Tenasserim, its northern limit, according to Mr. Davison, being about Ye.

It extends through the Malay peninsula to the islands of Sumatra and Borneo.

203. CHLOROPSIS CHLOROCEPHALA.

THE BURMESE GREEN BULBUL.

Phyllornis chlorocephalus, *Wald. Ann. Nat. Hist.* ser. 4, vii. p. 241; *Bl. B. Burm.* p. 137; *Hume, S. F.* iii. p. 127; *Hume & Dav. S. F.* vi. p. 323; *Hume, S. F.* viii. p. 99. *Chloropsis chlorocephala*, *Sharpe, Cat. Birds B. Mus.* vi. p. 28.

Description.—*Male.* Lores, feathers under and in front of the eye, cheeks, chin and throat black; forehead and a broad band from eye to eye, passing round and encircling the throat pale yellowish green; front of the crown above the forehead and a broad streak passing over the eyes and ear-coverts pale green; a very short moustachial streak cobalt; crown of the head and nape golden green; back, rump, upper tail-coverts and scapulars deep green; tail blue; primaries and their coverts black edged with blue; secondaries black on the inner and blue on the outer webs, and edged with green; tertiaries and inner greater coverts green tinged with blue; lesser coverts glistening smalt-blue; median and greater coverts green tinged with blue at the base; under plumage bright green tinged with yellow on the breast.

In the *female* the black on the head of the male is replaced by bluish green, and the broad yellow band encircling the black is absent; the coloration is duller everywhere, and the moustachial streak is pale bluish green.

The *young* are very like the adult female.

Bill black; iris brown; legs plumbeous; claws horn-colour.

Length 7·1 inches, tail 2·7, wing 3·3, tarsus ·77, bill from gape ·9.

C. icterocephala, from the Malay peninsula, is very close to *C. chlorocephala*, but differs in having the forehead and the band encircling the throat pure yellow; the yellowish green on the front of the crown and over the eyes and ear-coverts is absent, and the whole summit of the head is a rich golden fulvous. *C. jerdoni*, from India, is said to have occurred in Tenasserim, but its occurrence there is so doubtful that I do not retain it; it is of the type of *C. chlorocephala*, but with the wing edged green instead of blue.

The Burmese Green Bulbul is stated by Mr. Blyth to occur in Arrakan. It is abundant in all the higher hills of Pegu where the forest is evergreen, but is not, I think, found in the plains. Capt. Wardlaw Ramsay procured it in Karennee at 1600 feet elevation. According to Mr. Davison it is very common throughout Tenasserim, except on the highest hills; and Capt. Bingham states that it is abundant in the Thoungyeen valley.

To the south it has been found in the Malay peninsula as far as Kussoom and the Salanga Islands, and in the east it extends to Cochin China.

Its range to the north is not known, but according to Mr. Blyth it has occurred in the Garo hills in Eastern Bengal.

204. CHLOROPSIS CYANOPOGON.

THE BLUE-WHISKERED GREEN BULBUL.

Phyllornis cyanopogon, *Temm. Pl. Col.* 512. f. 1; *Salvad. Ucc. Born.* p. 194; *Hume & Dav. S. F.* vi. p. 325; *Hume, S. F.* viii. p. 99. **Chloropsis cyanopogon**, *Sharpe, Cat. Birds B. Mus.* vi. p. 32.

Description.—*Male.* Upper plumage, wing-coverts and sides of the neck bright green; the lesser wing-coverts more brilliant, but not forming a bright patch; the forehead tinged with yellow; wings dark brown broadly edged with bright green; tail green, edged with brown on the inner webs; lores, cheeks, chin and throat black; a line over the lores and eye brighter green than the other parts; a short moustachial streak cobalt; a line bordering the black throat green tinged with yellow; lower plumage light green.

The *female* has no black on the chin and throat, and the moustachial streak is duller blue. The feathers round the eye are conspicuously lighter than the crown.

Legs and feet dark plumbeous; bill black; irides dark brown. (*Davison.*)

Length 7 inches, tail 2·6, wing 3·3, tarsus ·7, bill from gape ·8. The female is of about the same size.

The Blue-whiskered Green Bulbul has been found in the extreme south of Tenasserim at Bankasoon by Mr. Davison.

It occurs throughout the Malay peninsula and also in Sumatra and Borneo.

Subfamily IRENINÆ.

Genus IRENA, *Horsf.*

205. IRENA PUELLA.

THE FAIRY BLUEBIRD.

Coracias puella, *Lath. Ind. Orn.* i. p. 171. **Irena puella**, *Jerd. B. Ind.* ii. p. 105; *Stoliczka, J. A. S. B.* xxxix. pt. ii. p. 318; *Wald. Ibis*, 1871, p. 170; *Hume, Nests and Eggs*, p. 298; *Hume, S. F.* ii. p. 226, iii. p. 130; *Bl. & Wald. B. Burm.* p. 138; *Armstrong, S. F.* iv. p. 326; *Bourdillon, S. F.* iv. p. 400; *Wardlaw Ramsay, Ibis*, 1877, p. 467; *Hume & Dav. S. F.* vi. p. 328; *Hume, S. F.* viii. p. 99; *Legge, Birds Ceylon*, p. 466; *Sharpe, Cat. Birds B. Mus.* vi. p. 177; *Bingham, S. F.* ix. p. 184; *Oates, S. F.* x. p. 211.

Description.—*Male.* The whole upper plumage, the lesser wing-coverts and the under tail-coverts shining ultramarine-blue with lilac reflexions;

sides of the head and the whole lower plumage deep black ; greater wing-coverts, quills and tail black ; some of the coverts tipped with blue and the central tail-feathers glossed with blue.

The *female* has the whole upper plumage, the lesser wing-coverts and the lower tail-coverts brownish blue, with the edges of the feathers brighter ; central tail-feathers and the outer webs of all the others, except the outer pair, like the upper plumage ; remainder of tail dark brown ; primaries and secondaries dark brown ; the greater wing-coverts, primary-coverts and tertiaries dark brown with a blue tinge on the outer webs ; sides of the head and whole lower plumage blue, very similar to the upper parts.

Young birds are like the female. The male changes into adult plumage about March, and the change takes place without a moult ; the feathers of the upper parts first become fringed with bright blue ; the tail-coverts next become changed ; the lower plumage takes the longest to change, and young birds may frequently be met with having the lower plumage mixed black and dull blue, but the upper plumage that of the adult.

Iris crimson ; eyelids pinkish ; bill and legs black ; mouth flesh-colour ; claws black.

Length 10·3 inches, tail 4·2, wing 5·1, tarsus ·85, bill from gape 1·2. The female averages a little smaller.

I. cyanea, from the Malay peninsula, differs in having the under tail-coverts longer, nearly reaching to the tip of the tail.

The Fairy Bluebird is abundant in all the evergreen forests of the Pegu hills from the frontier quite down to Rangoon. I have never seen it on the western slopes, where the forests are very dry and unsuitable. I have met with it in the plains between Bhaunee and Shwaygheen, but only where the forest was very thick and luxuriant. Dr. Armstrong states that it is common at Syriam and at China Bakeer in the Irrawaddy Delta. Capt. Wardlaw Ramsay remarks that he met with this bird only on the western slopes of the Karin hills and nowhere else. According to Mr. Davison it is common in all the evergreen forests of Tenasserim. Mr. Blyth records the bird from Arrakan, where no doubt it is abundant in suitable localities.

The present species probably ranges some way down the Malay peninsula, for my collectors procured a great number of these birds at Malewoon, and it is hardly likely to stop short there.

It occurs in Siam and Cochin China, in the Khasia hills, Cachar and Assam, and, skipping over the greater part of India, reappears in the hills of Southern India, the Malabar coast, Ceylon and the Andaman Islands.

This lovely bird is only found in evergreen forests, and is more abundant in hilly tracts than in the plains. It is generally found in pairs moving about from tree to tree in a restless manner. It feeds chiefly on fruit. The note of this bird is very sweet, and has been likened by Mr. Davison

to the words "be quick, be quick," repeated fast, and with the accent on the word "quick."

Capt. Bingham found the nest in Tenasserim in April. It was a shallow cup-shaped structure, made of twigs and moss, placed in a small tree. It contained two eggs, which were greenish white marked with brown.

Family ORIOLIDÆ.

Genus ORIOLUS, *Linn.*

206. ORIOLUS INDICUS.

THE BLACK-NAPED ORIOLE.

Oriolus indicus, *Jerd. Ill. Ind. Orn.* pl. 15; *id. B. Ind.* ii. p. 109; *Salvad. Ucc. Born.* p. 275; *Hume, S. F.* viii. p. 132; *Bl. & Wald. B. Burm.* p. 139; *Hume & Dav. S. F.* vi. p. 329; *Hume, S. F.* viii. p. 99. *Oriolus diffusus*, *Sharpe, Cat. Birds B. Mus.* iii. p. 197; *Legge, Birds Ceylon*, p. 355. *Oriolus cochinchinensis*, *apud David et Oust. Ois. Chine*, p. 132.

Description.—*Male.* Lores and a streak over the eye widening to a band three quarters of an inch wide on the nape black; the whole remaining plumage bright yellow; central pair of tail-feathers black with narrow yellow tips; the others progressively more tipped with yellow towards the outer pair, which is tipped to the extent of an inch and a half; primaries black, tipped and edged narrowly with yellowish white; the secondaries more broadly edged with the same; tertiaries with the whole outer webs and a portion of the inner webs next the shaft yellow; winglet black; primary-coverts black, tipped with yellow to the extent of 4 inch; upper wing-coverts bright yellow, the inner webs of the greater coverts being black.

The *female* is like the male, except that the back is tinged with yellow.

Young birds, when quite young, have the upper plumage greenish, with brown shafts; the horseshoe mark on the head is barely indicated; with the exception of the sides of the neck, the flanks and the under tail-coverts (which are always yellow), the whole lower plumage is whitish broadly streaked with black; the wings are dark brown, the yellow of the adult being replaced by dull greenish; the tail is greenish, with dull yellow tips to the inner webs only, not so extensive as in the adult.

As the bird gets older the white of the lower parts changes to yellow, and the streaks become narrower; the upper plumage becomes yellow and

the wings and tail turn to blackish, and the nape-band becomes better defined. The changes take place very gradually by a change of colour in the feathers themselves and not by moulting, and probably take two years at the least to be effected.

In the adult the iris is pink, the eyelids pinkish; the bill pink, more or less livid in places; the inside of the mouth is flesh-colour; the legs and toes are deep plumbeous, and the claws are dark brown. Young birds have the bill brown or black.

Length 10·7 inches, tail 4, wing 6·1, tarsus 1·05, bill from gape 1·4. The female is rather smaller.

I have adopted Jerdon's name of *indicus* in preference to *diffusus* of Sharpe, as the bird is well known under the former name, and Jerdon applied it without doubt to the present species.

The Black-naped Oriole appears to be only a winter visitor to British Burmah. Mr. Blyth records it from Arrakan. In Lower Pegu, especially near the town of Pegu, I found it very common from October to February, but I failed to meet with it in the dry parts of Northern Pegu. Capt. Wardlaw Ramsay procured it in Rangoon, and Dr. Armstrong found it not uncommon in the Irrawaddy Delta. Mr. Davison met with it in Tenasserim from Thatone down to Malewoon during the winter months.

It has a very extensive range. In winter it is found throughout the whole peninsula of India, the Indo-Burmese countries, Siam and Cochin China. In summer it is spread over China and Mongolia, and even a portion of Eastern Siberia.

This Oriole is found more frequently in forests than in gardens and compounds. It keeps to the trees, never descending to the ground. It has the same series of sweet whistling notes that the other Orioles have. It feeds chiefly on fruit, but I imagine that it must at times eat insects. It makes but a short stay in Burmah, arriving late and leaving early.

207. ORIOLUS TENUIROSTRIS.

THE BURMESE BLACK-NAPED ORIOLE.

Oriolus tenuirostris, Bl. *J. A. S. B.* xv. p. 48; *Hume*, *S. F.* iii. p. 131; *Bl. B. Burm.* p. 140; *Sharpe*, *Cat. Birds B. Mus.* iii. p. 198; *Hume & Dav.* *S. F.* vi. p. 329; *Hume*, *S. F.* viii. p. 99; *Scully*, *S. F.* viii. p. 298.

Description.—In general appearance similar to *O. indicus*. It differs in the following respects:—

1. In having a more slender bill.
2. In the wing-spot or yellow on the primary-coverts being larger, the length of the yellow marks being about three quarters of an inch.

3. In the greater amount of yellow on the tail, extending to nearly 2 inches on the outer feathers and to 1 inch on the pair next the centre ones, against 1·5 and ·4 inch respectively in *O. indicus*.

4. In the narrower width of the band on the nape, which is never more than ·4 inch as against ·7 in *O. indicus*.

Young birds are difficult to separate. If very young, weight must be attached to the smaller bill and to the smaller amount of yellow on the tail. When the nape-band becomes indicated, however feebly, there can be no doubt as to which species the bird examined belongs.

In the adult the iris is red; the bill pale pink; the inside of the mouth flesh-colour; the legs plumbeous; and the claws dark horn. In the young the bill is black.

Length 10 inches, tail 3·7, wing 5·9, tarsus 1, bill from gape 1·35. The female is of the same size.

Adult birds of this species and *O. indicus* are very distinct, and I have not seen any birds which could not instantly be referred to one or the other species. The young require some care to discriminate, especially when only a few months old.

This Oriole appears to be spread over the whole Pegu Division. I have procured it in the Thayetmyo district, where it is abundant, and also at various points near Pegu, where it appears to be rarer. Capt. Wardlaw Ramsay procured it in Karennee and Colonel Lloyd at Tonghoo. Mr. Davison states that it is very rare in Tenasserim, where he procured only three specimens in four years, at Kollidoo, Mooleyit and Malewoon. It would thus appear to be generally distributed over that Division. Mr. Blyth has recorded the occurrence of this species in Arrakan. It has been found in Cachar, in Munipoor and in Nipal, and it will probably be found to have a very wide range.

This Oriole, which bears a close superficial resemblance to the last, is comparatively a rare bird in all parts except the Thayetmyo district. In this part of Burmah it frequents gardens and compounds and may be seen daily. I have never been able to find its nest. I believe that it is a constant resident in all parts of Burmah.

208. ORIOLUS MELANOCEPHALUS.

THE BLACK-HEADED ORIOLE.

Oriolus melanocephalus, Linn. *Syst. Nat.* i. p. 160; Jerd. *B. Ind.* ii. p. 110; Hume, *Nests and Eggs*, p. 301; Bl. *B. Burm.* p. 139; Sharpe, *Cat. Birds B. Mus.* iii. p. 215; Oates, *S. F.* vii. p. 48; Cripps, *S. F.* vii. p. 281; Anders. *Yunnan Exped.* p. 660; Hume, *S. F.* viii. p. 99; Legge, *Birds Ceylon*, p. 357. *Oriolus ceylonensis*, Bonap. *Consp.* i. p. 347; Jerd. *B. Ind.* ii. p. 111; Hume, *S. F.* i. p. 439. *Oriolus himalayanus*, Legge, *Birds Ceylon*, p. 358.

Description.—*Male.* The whole head, chin and throat and the upper breast black. With this exception the whole of the body-plumage is bright yellow; coverts to primaries black with yellow tips forming a wing-spot; winglet black; the upper wing-coverts yellow; the first primary wholly black, the others black tipped with yellow and obsoletely margined with yellowish white on the outer web; secondaries and tertiaries black with broad diagonal tippings of yellow on the outer webs, gradually extending also to the inner web; the last tertiary or two wholly yellow on the outer web; tail yellow, the centre pair of feathers black on their terminal half with a yellow tipping, the next pair with less black and a greater yellow tipping, and the third pair with merely a small patch of black on the outer web (absent in very old birds). The shafts of all the rectrices black.

The *female* is very much like the male, but has the yellow of the back and breast less bright with sometimes a tinge of green.

The *young* are yellow on the forehead, streaked with black; the crown and nape blackish edged with yellow; the chin, throat and sides of the head white, streaked with black; the other parts of the plumage are much as in the adult but duller.

In the adult the iris is crimson, the eyelids plumbeous, the inside of the mouth flesh-colour, the bill pinkish, the legs plumbeous and the claws dark horn-colour. The young have the iris brown and the bill varying from black, when quite young, to pink varied with dusky, when older.

Length 9·5 inches, tail 3·4, wing 5·4, tarsus 1, bill from gape 1·3. The female is usually smaller.

The race from Ceylon, *O. ceylonensis*, is, in typical birds, smaller with less yellow on the wing. Major Legge has shown that the well-known name *melanocephalus* which Linnæus bestowed on a black-headed Oriole from India really applies to this Cingalese form, and he has proposed the name of *O. himalayanus* for the larger continental bird.

I do not, however, propose to separate the two forms, and thus Linnæus's well-known name will be retained here.

The Black-headed Oriole is common and a constant resident in all parts of British Burmah, except south of Mergui, where, according to Mr. Davi-

son, it becomes rare. Capt. Bingham states that it is common in the Thoungyeen valley, and Capt. Wardlaw Ramsay-procured it in Karennee.

It appears to extend some distance down the Malay peninsula. To the north it extends through Upper Burmah to India and is found over the whole peninsula down to Ceylon. It also occurs in Cochin China and Siam.

Few birds are more conspicuous and better known than the Black-headed Oriole. It affects alike the deepest forests and the most frequented gardens and compounds. Its exquisite call of five whistling notes is one of the most charming sounds heard in the jungle, and it seems to be uttered at all hours of the day and almost all the year round. I have frequently found the nest from March to June. It is usually placed in a mango-tree at a considerable height from the ground. In shape it is a sort of cup and it is suspended like a cradle between two twigs. The materials of which it is made are vegetable fibres and soft pieces of bark. The eggs, usually three in number, are pinkish white spotted with black.

209. ORIOLUS XANTHONOTUS.

THE SMALL BLACK-HEADED ORIOLE.

Oriolus xanthonotus, Horsf. Zool. Res. in Java, pl. ; *id.* Trans. Linn. Soc. xiii. p. 152; *Stoliczka*, J. A. S. B. xxxix. pt. ii. p. 317; *Salvad. Ucc. Born.* p. 277; *Sharpe*, Cat. Birds B. Mus. iii. p. 213; *Tweedd. P. Z. S.* 1878, p. 616; *Hume & Dav. S. F.* vi. p. 330; *Hume*, S. F. viii. p. 99.

Description.—*Male.* The whole head, neck, chin, throat and breast black; abdomen and flanks white streaked with black; under tail-coverts yellow; sides of the breast tinged with yellow; axillaries grey; under wing-coverts black margined with yellow; back, scapulars, lesser wing-coverts, rump and upper tail-coverts yellow; median wing-coverts black, broadly tipped with yellow; the remaining coverts and all the quills black, most of them very narrowly edged with yellow; tail black, tipped with yellow, very narrowly so on the central pair of feathers, and increasing in extent outwardly.

The *female* has the whole upper plumage, with the lesser wing-coverts and tertiaries, olive-yellow, and the feathers of the head with dusky striations the lores are grey, the feathers round the edges of the eyelids yellow, and the ear-coverts olive-yellow with paler shafts; the chin and throat are whitish; the breast, abdomen and flanks white streaked with black; under tail-coverts yellow; median and greater wing-coverts brown edged with olive-yellow; primaries dark brown, very narrowly edged with pale yellow; secondaries dark brown, broadly edged with olive-yellow; tail olive-yellow,

all the feathers tipped with bright yellow, as in the male, and all but the central feathers with the centre portion more or less dark brown.

The *young* are like the adult female. The male acquires the full plumage slowly and at the last stage the back is spotted, and the rump margined, with black.

Some specimens of this species, either adult females or immature birds, have most of the feathers of the wings and coverts tipped and margined with chestnut. This, perhaps, indicates very young birds.

The legs and feet are plumbeous blue or very dark plumbeous, the bill very dark fleshy or pale fleshy brown; the irides crimson. (*Davison.*)

Length 8 inches, tail 2·8, wing 4·4, tarsus ·8, bill from gape 1·1. The female is smaller.

The Small Black-headed Oriole occurs in the extreme south of Tenasserim, where it was procured by Mr. Davison, but it was rare there.

It extends down the Malay peninsula and occurs in Sumatra, Java and Borneo and probably, according to the Marquis of Tweeddale (*l. c.*), in the Philippine Islands.

This Oriole is a forest bird, and its habits, as observed by Mr. Davison, do not appear to differ in any particular from the preceding species.

210. ORIOLUS TRAILLI.

THE MAROON ORIOLE.

Pastor traillii, *Vig. P. Z. S.* 1831, p. 175. **Analcipus traillii**, *Swains. Class. B.* ii. p. 222. **Psaropholus traillii**, *Jard. & Sel. Ill. Orn.* iv. pl. 26; *Bl. & Wald. B. Burm.* p. 139. **Oriolus traillii**, *Jerd. B. Ind.* ii. p. 112; *Sharpe, Cat. Birds B. Mus.* iii. p. 222; *Hume, S. F.* viii. p. 99; *Scully, S. F.* viii. p. 299.

Description.—*Male and female.* The whole head, neck, chin and throat black; the wings and under wing-coverts with the tips of some of the scapulars glossy black; remainder of plumage with the tail bright shining maroon-red, the tail not so bright as the other parts.

The *young* have the crown and nape dark brown; the back, rump, scapulars and wing-coverts dark brown, each feather edged with rufous; the upper tail-coverts maroon-red, with black shafts; the tail maroon-red; the greater part of the central feathers and the edges of the outer webs of the other feathers brown; lower plumage white, streaked with brown; under tail-coverts pale maroon; wings brown. As the bird grows older the head becomes black, the upper plumage loses the rufous fringes and turns gradually to maroon, the under plumage becomes tinged with red and the streaks disappear, and the adult plumage is assumed by a series of slow changes.

Bill pale bluish grey; irides pale buffy yellow; feet plumbeous; claws blue at base, pale horny at tip. (*Scully*.)

Length 11 inches, tail 4·5, wing 6, tarsus 1, bill from gape 1·45. The female is probably smaller than the male.

The Maroon Oriole is a rare bird in Burmah. Mr. Blyth records it from Arrakan, whence I have also received it. Capt. Wardlaw Ramsay procured it at Tonghoo and in the Karin hills, as also in Karennee. My men got a few specimens near Tonghoo, and Mr. de Wet also sent it me thence. Mr. Davison observed it at Kyouknyat, but at no other place in Tenasserim.

It extends throughout the whole range of the Himalayas from Assam to the valley of the Sutlej.

A very lovely allied species (*O. ardens*) occurs in China.

Dr. Jerdon states that this Oriole is generally found in small flocks, keeping to high trees, and has a fine loud mellow call. Those birds he examined had partaken of caterpillars only.

Family DICRURIDÆ.

Genus DICRURUS, Vieill.

211. DICRURUS ANNECTENS.

THE CROW-BILLED DRONGO.

Buchanga annectans, *Hodgs. Ind. Rev.* i. p. 326. **Edolius affinis**, *Bl. J. A. S. B.* xi. p. 174. **Dicrurus balicassius** (*Linn.*), *Jerd. B. Ind.* i. p. 430. **Dicrurus annectens**, *Bl. & Wald. B. Burm.* p. 131; *Sharpe, Cat. Birds B. Mus.* iii. p. 231; *Tweedd. Ibis*, 1878, p. 72. **Dicrurus annectans**, *Hume & Dav. S. F.* vi. pp. 213, 509; *Hume, S. F.* viii. p. 91; *Oates, S. F.* x. p. 201.

Description.—*Male and female.* The whole plumage black, glossed with steel-blue, except on the lores, ear-coverts, the inner webs of the quills, axillaries and under wing-coverts.

Birds not quite adult have the axillaries and under wing-coverts tipped with white, and birds still younger have the under tail-coverts also tipped with white.

Young birds of the year have the whole lower plumage from the breast to the tail barred with white.

The change from the young to the adult plumage consists entirely in the gradual disappearance of the white marks on the lower plumage; but there is a tendency to retain these marks in some degree even in old age. Birds entirely black are comparatively seldom met with.

Bill and legs black ; irides brown. (*Jerdon.*)

Length 10·5 inches, tail 5·1, wing 5·6, tarsus ·8, bill from gape 1·2. The female is rather smaller than the male.

So little has been written about this bird that it is very difficult to ascertain what its distribution is. It sweeps through Pegu every year in October ; but whether it comes from the north or from the south I am unable to say : it is not seen at other times. Capt. Wardlaw Ramsay procured it in Rangoon, but he does not state at what time of the year he obtained it. Mr. Davison says that it is not uncommon in the southern third of Tenasserim, and it appears that he got it as far north as Mount Nwalabo. My own men, who collected for me at Malewoon, brought great numbers of it ; and all their specimens were procured from the 13th of December to the 10th of February. There seems little doubt that this Drongo is a migratory species.

It extends down the Malay peninsula, and is found in the island of Sumatra. Dr. Tiraud gives it from Cochin China. Dr. Jerdon states that this bird is rare in Nipal, in the lower valleys near the plain, and extends thence eastwards through Lower Bengal and Dacca to Assam, Burma and Malacca.

The birds I had the opportunity of observing in Pegu had the habits of the Common Black Drongo, sitting on the branches of bushes &c. and darting on passing insects.

Genus BUCHANGA, *Hodgs.*

212. BUCHANGA ATRA.

THE BLACK DRONGO.

Muscicapa atra, *Hermann, Obs. Zool.* p. 208. **Dicrurus macrocercus**, *Vieill. Nouv. Dict. d'Hist. Nat.* ix. p. 588 ; *Jerd. B. Ind.* i. p. 427. **Edolius forficatus**, *Horsf. Trans. Linn. Soc.* xiii. p. 144. **Buchanga albirictus**, *Hodgs. Ind. Rev.* i. p. 326 ; *Hume, Nests and Eggs*, p. 186 ; *Armstrong, S. F.* iv. p. 318. **Dicrurus minor**, *Bl. Ann. Nat. Hist.* ser. 2, xiii. p. 129. **Dicrourus longus** (*Temm.*), *Bonap. Consp. Av.* i. p. 352. **Dicrurus cathœcus**, *Swinh. P. Z. S.* 1871, p. 377 ; *David et Oust. Ois. Chine*, p. 108. **Dicrurus albirictus**, *Hume, S. F.* iii. p. 97. **Buchanga atra**, *Bl. & Wald. B. Burm.* p. 129 ; *Sharpe, Cat. Birds B. Mus.* iii. p. 246 ; *Hume & Dav. S. F.* vi. p. 213 ; *Anders. Yunnan Exped.* p. 653 ; *Legge, Birds Ceylon*, p. 386 ; *Cripps, S. F.* vii. p. 272 ; *Hume, S. F.* viii. p. 91 ; *Scully, S. F.* viii. p. 270.

Description.—*Male and female.* The whole plumage deep black everywhere glossed with steel-blue ; a small white spot sometimes present close to the angle of the gape.

The young have the wings and the lower plumage brownish, and all the feathers of the lower plumage and under wing-coverts are tipped with white.

It is only when very old that this species is entirely black. Few birds are without white tips to the under tail-coverts.

Bill black ; iris red ; feet and claws black.

Length 11 inches, tail 6, wing 5·6, tarsus ·82, bill from gape 1·1. The female is of much the same size.

The above are measurements of specimens shot in Pegu. These birds vary much in size in different countries, and it appears impossible to maintain the various species which have been characterized by different authors. I follow Mr. Sharpe in uniting them all.

The Black Drongo or King-Crow, as it is often called by residents in India and Burmah, appears to be spread over the whole country, either as a resident or a migrant. In Pegu it is a common bird from October to January, and in the other months of the year it is either absent or very rare. About October vast quantities of this bird flood Lower Pegu, and the cessation of the rains is the signal for its arrival. Dr. Armstrong found it common in the Irrawaddy Delta, but I do not know at what time of the year he observed them ; it was probably in the dry weather. Mr. Davison states that it was common in Tenasserim from Moulmein down to Malewoon, and Capt. Wardlaw Ramsay observed it at Tonghoo and in Karennee. Capt. Bingham states that he found it in the Thoungyeen valley at different times of the year. Thus it is probable that this Drongo is migratory, or partially so, only in the Pegu Division.

This bird does not appear to be found in the Malay peninsula, but it occurs in Java. Dr. Tiraud gives it from Cochin China, and it is spread over China. It ranges through the Indo-Burmese countries, and is diffused over the whole of India and Ceylon.

The King-Crow is chiefly found in open jungle near houses, and does not shun observation. Its habits and its cheerful notes must be well known to all. In India it breeds chiefly during May, June and July ; and probably if this Drongo is found nesting in Burmah, it will be in one of these months. It places its nest pretty high up in a rather tall tree. The structure is cup-shaped, made of fine twigs and grass, and bound together with cobwebs. The eggs are usually four in number.

This species, which bears a very close resemblance to the Crow-billed Drongo, may be recognized by the tail, the extent to which it is forked being about one inch and a half, whereas in the other it is very much less.

213. BUCHANGA LONGICAUDATA.

THE DARK-ASHY DRONGO.

Dicrurus longicaudatus, *A. Hay, Jerd. Madr. Journ.* xiii. pt. ii. p. 121; *Jerd. B. Ind.* i. p. 430. **Buchanga longicaudata**, *Wald. P. Z. S.* 1866, p. 546; *Hume, Nests and Eggs*, p. 189; *Hume, S. F.* iii. p. 97; *Wald. in Bl. B. Burm.* p. 130; *Sharpe, Cat. Birds B. Mus.* iii. p. 249; *Hume & Dav. S. F.* vi. p. 213; *Anders. Yunnan Exped.* p. 654; *Legge, Birds Ceylon*, p. 390; *Tweedd. Ibis*, 1878, p. 74; *Hume, S. F.* viii. p. 91; *Scully, S. F.* viii. p. 270; *Oates, S. F.* x. p. 202. **Dicrurus himalayanus**, *Tytler, Ibis*, 1868, p. 200. **Buchanga waldeni**, *Beavan, Ibis*, 1868, p. 497.

Description.—*Male and female.* The whole upper plumage with the wings and tail blackish ashy tinged with blue; frontal plumes and lores black; lower plumage dark ashy paling towards the vent; under tail-coverts broadly tipped with white; under wing-coverts also tipped with white; these white tips probably disappear in extreme old age.

The *young* have the under surface brown; wings and tail as in the adult; upper surface dark brown, paling on the mantle and still further on the rump.

Bill, legs and claws black; iris red.

Length 11 inches, tail 6·5, wing 5·5, tarsus ·75, bill from gape 1·1. The two sexes are about the same size.

The Dark-ashy Drongo is abundant in Southern Pegu and appears to be a constant resident. Mr. Davison found it in Tenasserim from Moulmein down to Mergui, and I cannot find any notes with regard to its occurrence elsewhere in Burmah. Mr. Hume includes it in our list of the birds of Upper Pegu, but I cannot remember ever getting this species there. All the ashy Drongos I met with in Upper Pegu seemed to me to belong to *B. leucophæa*.

Although Mr. Davison did not find this bird further south in Tenasserim than Mergui, yet he seems to have procured it at Tonka on the coast of the Malay peninsula; and this appears to be by far the most southern locality from which the bird has been obtained.

It is found in the Indo-Burmese countries and over a great portion of the Indian peninsula.

The Dark-ashy Drongo frequents forest and tree-jungle, never being seen near houses. It has the usual habits of these King-Crows.

This species and the next are only to be distinguished by their coloration. In *B. longicaudata* the general tone of the plumage is very dark ashy; in *B. leucophæa* it is a very light ashy.

214. BUCHANGA LEUCOPHÆA.

THE PALE-ASHY DRONGO.

Dicrurus leucophæus, Vieill. *Nouv. Dict. d'Hist. Nat.* ix. p. 587; *Hume, S. F.* iii. p. 99. **Edolius cineraceus**, Horsf. *Trans. Linn. Soc.* xiii. p. 145. **Dicrurus pyrrhops**, Hodgs. in *Gray's Zool. Misc.* p. 84. **Dicrurus intermedius**, Bl. *J. A. S. B.* xv. p. 298. **Buchanga mouhoti**, Wald. *Ann. Nat. Hist.* ser. 4, v. p. 220; *David et Oust. Ois. Chine*, p. 109. **Buchanga wallacii**, Wald. *Ann. Nat. Hist.* ser. 4, v. p. 220. **Buchanga innexa**, Swinhoe, *Ibis*, 1870, p. 246; *David et Oust. Ois. Chine*, p. 110. **Buchanga intermedia**, Bl. & Wald. *B. Burm.* p. 130; *Armstrong, S. F.* iv. p. 319; *Oates, S. F.* v. p. 149, x. p. 202. **Buchanga pyrrhops**, Wald. in *Bl. B. Burm.* p. 130; *Armstrong, S. F.* iv. p. 320; *Sharpe, Cat. Birds B. Mus.* iii. p. 251; *Hume & Dav. S. F.* vi. p. 216; *Hume, S. F.* viii. p. 92; *Oates, S. F.* x. p. 202. **Buchanga cineracea**, Sharpe, *Cat. Birds B. Mus.* iii. p. 250; *Tweedd. Ibis*, 1878, p. 75. **Buchanga leucophæa**, *Hume & Dav. S. F.* vi. p. 317; *Hume, S. F.* viii. p. 92.

Description.—*Male and female.* Frontal plumes and lores black; the whole plumage bluish ashy, glossy above, paler underneath and without gloss except on the breast; upper wing-coverts centred darker; quills more or less brown, tinged with ashy on the outer webs; tail clear bluish ashy, the shafts black and the tips brownish.

The *young* have the mantle and tail like the adult; the other portions of the plumage light brown; the wing-coverts conspicuously edged paler. The young change to the adult plumage in the August or September of their first year.

Bill black; mouth dusky flesh-colour; iris crimson; feet and claws black; in the young the iris is brown.

Length 11 inches, tail 5·4–6·5, wing 5·2–5·75, tarsus ·8, bill from gape 1·1.

I am unable to separate the Pale-ashy Drongos that occur from Java up to the Himalayas into two or more species; they are all absolutely identical in coloration and differ in size only. Java birds are the smallest, and they gradually increase in size northwards till the maximum dimensions are reached in birds from Burmah and India. I have never myself seen birds with a wing of 5·75 inches, and I think that Lord Tweeddale's specimen (*l. c.*) with a wing of this length must have been quite an exceptional one. In Pegu the wings seem to average about 5·4 and the tails 5·9. If we attempt to separate these birds by size only, there will be found to be numerous individuals which cannot be ranged either with *B. pyrrhops*, *B. intermedia* or *B. leucophæa*. Lord Tweeddale maintained the three species; Mr. Sharpe retains two only, one of them indeed being, in his opinion, merely a subspecies; and Mr. Hume, as far as I can judge, would join them all together as I have done.

The Pale-ashy Drongo is found abundantly over the whole of British Burmah, and Capt. Wardlaw Ramsay procured it in Karennee.

It extends down the Malay peninsula into Java and Lombok. It occurs in Siam, Cochin China, Cambodia and Eastern China, and ranges across the Indo-Burmese countries into Nipal and the N.W. Himalayas. It appears to be everywhere a resident species.

This Drongo is found abundantly in all the well-wooded parts of the country. I have never observed it in compounds or near houses. It is in the habit of perching on the lower branches of trees and capturing insects on the wing, returning many times as a rule to the same perch.

I found the nest in April near Kyeikpadein placed near the summit of a small sapling. It was composed of fine twigs and dry stems of small weeds, and contained four eggs, which were white marked with pale purple.

This species may be distinguished from the last by the pale coloration of the plumage.

215. BUCHANGA LEUCOGENYS.

THE WHITE-CHEEKED DRONGO.

Buchanga leucogenys, *Wald. Ann. Nat. Hist.* ser. 4, v. p. 219; *id. in Bl. B. Burm.* p. 131; *Sharpe, Cat. Birds B. Mus.* iii. p. 251; *David et Oust. Ois. Chine*, p. 108, pl. 77; *Tweedd. Ibis*, 1878, p. 69; *Hume & Dav. S. F.* vi. p. 216; *Hume, S. F.* viii. p. 92. *Dicrurus leucophæus* (*Vieill.*), *apud Hume, S. F.* ii. p. 210.

Description.—*Male and female.* Whole upper plumage clear pale ashy grey; the shafts of the tail and quills and the tips of the first six or seven primaries black; lores, ear-coverts and a space round the eye pure white; forehead and nasal bristles black; lower plumage like the upper but paler, and the vent and under tail-coverts albescent; under wing-coverts white tinged with grey.

Young birds have the white of the face less pure and smaller in extent; the upper plumage, wings and tail are suffused with brown, rendering the black shafts less conspicuous; the lower plumage is darker than in the adult; the under wing-coverts are grey tipped with white.

Legs, feet, claws, bill and eyelids black; irides pale lake to crimson. (*Davison.*)

Length 10·5 inches, tail 5·7, wing 5·5, tarsus ·75, bill from gape 1·1. The female is of the same size.

The White-cheeked Drongo was procured by Mr. Davison in the southernmost part of Tenasserim, where he states it was abundant as far north as Mergui.

It extends down the Malay peninsula and is also found in Cochin China,

Siam, Cambodia, China and Japan. It is suggested that in the two latter countries it is merely a seasonal visitor, but I can find no information on the subject. It has once been procured on the Andaman Islands.

Mr. Davison says:—"I first met with this species on the island of Mergui, and both there and thence to the southern limit of our territory I found it very abundant.

"This is much more of a forest species than any of the other King-Crows, but it also occurs in clearings and occasionally in gardens.

"Its note and habits are much the same as those of the other species, and like them it is fond of perching on the top of some dead tree or other commanding station, from which it constantly makes short sallies after passing insects. It is always seen singly."

Genus CHAPTIA, *Hodgs.*

216. CHAPTIA *ÆNEA*.

THE BRONZED DRONGO.

Dicrurus æneus, *Vieill. Nouv. Dict. d'Hist. Nat.* ix. p. 586. **Chaptia malayensis**, *A. Hay, J. A. S. B.* xv. p. 294; *Salvad. Ucc. Born.* p. 153; *Tweedd. Ibis*, 1877, p. 315; *Sharpe, Cat. Birds B. Mus.* iii. p. 244; *Hume & Dav. S. F.* vi. p. 218; *Hume, S. F.* viii. p. 92. **Edolius picinus** (*S. Müll.*), *Bonap. Consp. Av.* i. p. 352. **Chaptia ænea**, *Jerd. B. Ind.* i. p. 433; *Hume, Nests and Eggs*, p. 192; *Bl. & Wald. B. Burm.* p. 128; *Hume, S. F.* iii. p. 100; *Armstrong, S. F.* iv. p. 320; *Sharpe, Cat. Birds B. Mus.* iii. p. 243; *Anders. Yunnan Exped.* p. 652; *Hume & Dav. S. F.* vi. p. 217; *Hume, S. F.* viii. p. 92; *Oates, S. F.* viii. p. 166; *Scully, S. F.* viii. p. 272; *Bingham, S. F.* ix. p. 173.

Description.—*Male and female.* The whole plumage black, glossed with metallic bronze on the whole upper plumage, also on the lengthened feathers of the throat and breast and on the upper abdomen; lower abdomen, vent and under tail-coverts dull brownish.

Length 9·5 inches, tail 5, wing 5, tarsus ·65, bill from gape 1. The female is of about the same size.

I am of opinion that *C. ænea* and *C. malayensis* are not specifically separable. Typical birds differ, but there are numerous specimens which it is impossible to assign with certainty to one or the other. *C. ænea* is generally a larger bird and has the rump and abdomen dull grey, whereas in *C. malayensis* those parts are as glossy as the remainder of the plumage. These differential characters, however, only hold good in birds taken from the two extreme limits of the range.

The Bronzed Drongo appears to be found in every part of Burmah. Mr. Blyth gives it from Arrakan, and I procured it at numerous places in Pegu. Both Mr. Davison and Capt. Bingham found it abundant in all parts of Tenasserim. Capt. Wardlaw Ramsay obtained it at Tonghoo, in the Karin hills and in Karennee.

It extends down the Malay peninsula, and is found in the islands of Sumatra and Borneo, and Dr. Tiraud states that it is found in Cochin China. If *C. brauniana* should prove identical with the present species, it is also found in China.

The Bronzed Drongo is an inhabitant of forests and places where there are a good many trees. It takes up its post on the summit or one of the higher branches of a tree, and darts on passing insects, generally returning to the same perch for some considerable time together. I found the nest in April near Kyeikpadein. It was made of fine grass, strips of plaintain-bark and vegetable fibres, overlaid at the edges with cobwebs, and was cup-shaped. It was placed at the tip of one of the higher branches of a jack-tree, and contained two eggs, which were salmon-coloured marked with a darker shade of the same.

Genus BHRINGA, *Hodgs.*

217. BHRINGA REMIFER.

THE LESSER RACKET-TAILED DRONGO.

Edolius remifer, *Temm. Pl. Col.* 178. **Bhringa tectirostris**, *Hodgs. Ind. Rev.* i. p. 325; *Hume, Nests and Eggs*, p. 193; *id. S. F.* iii. p. 101. **Bhringa remifer**, *Jerd. B. Ind.* i. p. 434; *Bl. & Wald. B. Burm.* p. 128; *Sharpe, Cat. Birds B. Mus.* iii. p. 257; *Hume & Dav. S. F.* vi. p. 218; *Tweedd. Ibis*, 1878, p. 80; *Anders. Yunnan Exped.* p. 652; *Hume, S. F.* viii. p. 92.

Description.—*Male and female.* Plumage entirely black; the head, neck, throat and breast glossed with metallic violet; the back and the outer webs of the quills and tail-feathers glossed with metallic blue.

Iris red; bill, legs and claws black; eyelids plumbeous.

Length to end of central tail-feathers 10·5 inches (the outer tail-feathers produced about 8 inches further), tail 5·2 to 12, wing 5·2, tarsus ·8, bill from gape 1·2. In the non-breeding season the outer tail-feathers are the same length as the central ones.

The Lesser Racket-tailed Drongo is found sparingly distributed over Pegu and confined entirely to the deep forests. Capt. Wardlaw Ramsay

observed it at Tonghoo and on the Karin hills. Mr. Davison did not get it in Tenasserim further south than Amherst, and Capt. Bingham procured it in the Thoungyeen valley. Mr. Blyth states that this bird occurs in Arrakan.

It appears to be absent from the Malay peninsula, but to reoccur in Sumatra and Java.

This Drongo, remarkable for its lengthened outer tail-feathers in the breeding-season, which probably extends from April to July, is found only in large forests, evergreen ones by preference. It takes up its post on a high branch and captures passing insects, not, however, descending to the ground. It is said to make its nest, a broad shallow cup, in lofty trees.

Genus DISSEMURUS, *Gloger*.

218. DISSEMURUS PARADISEUS.

THE GREAT RACKET-TAILED DRONGO.

Cuculus paradiseus, *Linn. Syst. Nat.* i. p. 172. **Lanius malabaricus**, *Lath. Ind. Orn.* i. p. 66. **Dicrurus platurus**, *Vieill. Nouv. Dict. d'Hist. Nat.* ix. p. 588. **Edolius rangoonensis**, *Gould, P. Z. S.* 1836, p. 5. **Edolius grandis**, *Gould, P. Z. S.* 1836, p. 5. **Chibia malabaroides**, *Hodgs. Ind. Rev.* i. p. 325. **Dicrurus retifer**, *Jerd. Madr. Journ.* x. p. 241. **Edolius cristatellus**, *Bl. J. A. S. B.* xi. p. 171. **Edolius brachyphorus** (*Temm.*), *Bonap. Consp. Av.* i. p. 351. **Edolius paradiseus** (*Linn.*), *Jerd. B. Ind.* i. p. 435. **Edolius malabaricus** (*Scop.*), *Jerd. B. Ind.* i. p. 437. **Edolius affinis**, *Tytler; Beavan, Ibis*, 1867, p. 323. **Dissemurus malabaroides** (*Hodgs.*), *Hume, Nests and Eggs*, p. 193; *id. S. F.* iii. p. 101; *Hume & Dav. S. F.* vi. p. 218. **Dissemurus affinis** (*Tytl.*), *Hume, S. F.* ii. p. 212. **Dissemurus brachyphorus** (*Temm.*), *Salvad. Ucc. Born.* p. 154. **Dissemurus paradiseus**, *Bl. & Wald. B. Burm.* p. 128; *Armstrong, S. F.* iv. p. 321; *Sharpe, Cat. Birds B. Mus.* iii. p. 258; *Tweedd. Ibis*, 1878, p. 80; *Hume & Dav. S. F.* vi. p. 219; *Legge, Birds Ceylon*, p. 399; *Hume, S. F.* viii. p. 92; *Bingham, S. F.* ix. p. 174; *Oates, S. F.* x. p. 203. **Dissemurus malabaricus** (*Scop.*), *Hume, S. F.* iv. p. 395. **Dissemurus platurus** (*V.*), *Tweedd. Ibis*, 1877, p. 313. **Dissemurus grandis** (*Gould*), *Hume, S. F.* viii. p. 92; *Oates, S. F.* viii. p. 166.

Description.—*Male and female.* The whole plumage black, glossed with steel-blue except on the inner webs of the quills, the throat, lower abdomen and vent; the two outer tail-feathers at all seasons and in both sexes much lengthened and furnished with a racket-shaped process at the tips.

Young birds have the steel-blue gloss less developed, and the under wing-coverts are tipped with white.

Iris red ; bill, feet and claws black ; in the young the iris is brown.

Length about 21 inches, tail about 15 to the tips of the rackets, about 6·5 to the end of the central tail-feathers, wing 5·7–6·6, tarsus 1·1, bill from gape 1·5 ; the crest varies in length from ·5 to 2 inches.

After examining a very large number of these Drongos from all the parts of Asia they inhabit, I am of opinion that Mr. Sharpe is correct in uniting all the races into one species. Mr. Hume recognizes three species in India, Burmah, the Andamans and the Malay peninsula, viz. :—*D. grandis*, with a very large crest and wing from 6·75 to 7 inches ; *D. paradiseus*, with medium-sized crest and wing about 6 to 6·6 inches ; and *D. platurus*, practically without any crest and with a wing about 5·4 to 5·8 inches. Both *D. grandis* and *D. paradiseus*, according to Mr. Hume's views, inhabit British Burmah. I am unable to recognize them. My own Burmese specimens have wings ranging from 5·7 to 6·7 inches in length and crests varying from ·5 to 1·5 inch, and they all run into one another. It is a precisely similar case to that of the Pale-ashy Drongos. There are very numerous specimens which cannot with certainty be allotted to one species or the other, and under these circumstances it is useless trying to maintain that there are any specific differences of value.

Mr. Sharpe ends his review of these birds with the following remarks :—“ Finding it, therefore, quite impossible to define exact specific characters for these supposed species, I have united them under one name, and merely keep the specimens arranged under different headings ; for I fully believe that a larger series will only show more connecting links, and that it will be found more and more impossible to give specific characters for those differentiated under the various titles mentioned.”

The Large Racket-tailed Drongo is found over every portion of British Burmah except in the vast grassy plains in the south of Pegu, but even there it will be found if there be any large number of trees together.

It is spread over a great portion of India, Ceylon, the Andaman Islands, the Indo-Burmese countries, Siam, Cochin China, the Malay peninsula, Sumatra, Java and Borneo.

This handsome and well-known bird is found abundantly in all forests, well-wooded parts of the country, compounds and gardens. It is more abundant in thick forests than elsewhere, and is of a sociable nature, many birds being generally seen together in the same spot. It takes its post on a branch, a fence or a fallen trunk of a tree, and flies gracefully after passing insects, catching them sometimes on the ground, but without alighting on it. The song of this bird is very rich and varied, and it may be heard at most times of the year in the morning and evening.

I have frequently found its nest, but it is usually so inaccessible that it is most dangerous to attempt to reach it. It generally selects the extreme tip of a bough either on the top of a high tree or well out at the sides, and

builds the nest in a fork. The nest is made of fine twigs and creepers, and is sometimes lined with grass. The eggs, usually three in number, are white or pinkish marked with reddish brown and neutral tint.

Genus CHIBIA, *Hodgs.*

219. CHIBIA HOTTENTOTTA.

THE HAIR-CRESTED DRONGO.

Corvus hottentottus, *Linn. Syst. Nat.* i. p. 155. **Chibia hottentota**, *Jerd. B. Ind.* i. p. 439; *Bl. B. Burm.* p. 128; *Anders. Yunnan Exped.* p. 651. **Chibia brevirostris**, *Cab. Mus. Hein.* i. p. 112; *David et Oust. Ois. Chine*, p. 110. **Chibia hottentotta**, *Hume, Nests and Eggs*, p. 194; *Hume, S. F.* iii. p. 101; *Sharpe, Cat. Birds B. Mus.* iii. p. 235; *Tweedd. Ibis*, 1878, p. 73; *Hume & Dav. S. F.* vi. p. 222; *Hume, S. F.* viii. p. 92; *Oates, S. F.* viii. p. 167; *Scully, S. F.* viii. p. 272; *Bingham, S. F.* ix. p. 174.

Description.—*Male and female.* The whole plumage black, with metallic blue reflections on the crown and hackled feathers of the neck and breast; wing-coverts and outer webs of the quills and tail-feathers glossed with metallic bronze.

Iris dark brown; bill, legs and claws black.

Length 12·5 inches, tail 5·6, wing 6·5, tarsus ·9, bill from gape 1·6. The female is of the same size.

The Hair-crested Drongo is found pretty well over the whole of Burmah except, perhaps, in the southernmost portion of Tenasserim, where Mr. Davison did not observe it.

Mr. Blyth states that it occurs in Arrakan. I have observed it in many parts of Pegu. I got it at Boulay between Thayetmyo and Prome, and I found it very abundant at Nyoungyeedouk at the foot of the Arrakan hills on the eastern side. I also found it abundant in the forests round Entagau bungalow on the Prome road. Mr. Davison found it in Tenasserim as far south as Bopyin, and Capt. Bingham in the Thoungyeen valley. Capt. Wardlaw Ramsay records it from Tonghoo and the Karin hills east of that town.

Dr. Tiraud states that it occurs in Cochin China, and it is also found spread over the greater part of China up to Peking. The Chinese and Cochin-Chinese race, *C. brevirostris*, is not considered distinct from the Burmese and Indian bird by Mr. Sharpe and Lord Tweeddale. *C. hottentotta* is also found in the Indo-Burmese countries, in the Himalayas and over a great portion of India.

The Hair-crested Drongo is found in large flocks in thick forests or in places where large trees abound. They are generally seen on flowering trees engaged in feeding on the nectar of the flowers and also on insects. They never descend to the ground. I have frequently found the nest in May in Pegu; it is constructed of fine twigs and dry creeper-stalks, and is hung between the two branches of a fork at the very top of the highest trees. It is a matter of extreme difficulty to get at the nest. The eggs, three in number, are white marked with reddish brown and neutral tint.

This species may be recognized by the hair-like feathers of the crest, which are of great length.

Family CAMPOPHAGIDÆ.

Genus GRAUCALUS, *Cuvier*.

220. GRAUCALUS MACII.

THE INDIAN CUCKOO-SHRIKE.

Graucalus macii, *Less. Traité*, p. 349; *Jerd. B. Ind.* i. p. 417; *Wald. Ibis*, 1872, p. 311; *Blanf. J. A. S. B.* xli. pt. ii. p. 156; *Hume, Nests and Eggs*, p. 181; *id. S. F.* ii. p. 204; *Ball, S. F.* ii. p. 400; *Bl. B. Burm.* p. 123; *Anders. Yunnan Exped.* p. 647; *Legge, Birds Ceylon*, p. 360; *Sharpe, Cat. Birds B. Mus.* iv. p. 34; *Hume, S. F.* viii. p. 91; *Scully, S. F.* viii. p. 267. *Graucalus layardi*, *Bl. Ibis*, 1866, p. 358; *Jerd. Ibis*, 1872, p. 117; *Legge, Ibis*, 1875, p. 287.

Description.—*Male*. Upper plumage grey, paler on the rump and upper tail-coverts; the region of the nostrils, the lores and feathers about the gape black; sides of the face and of the neck similar to the upper plumage; ear-coverts blackish; chin, throat, breast and upper abdomen grey, rather lighter than the upper parts; remainder of lower plumage greyish white; wing-coverts like the back; bastard wing black; primaries and primary-coverts dark brown, very narrowly edged with grey; secondaries more broadly edged with the same; tertiaries grey on the whole outer web and brown on the inner; central tail-feathers ashy, tipped paler; the others blackish, all tipped with greyish white, increasing in extent outwardly, with the bases grey, this colour decreasing in extent outwardly and being absent on the outer ones.

Female. The black on the face is absent, and this part as well as the ear-coverts are of much the same grey as the head; the general tone of the plumage is lighter. The female is seldom without a few indications of immaturity, these signs being visible chiefly in the shape of obsolete bars.

The *young* have most of the upper plumage tipped and margined with pale ferruginous, and the lower parts nearly pure white. Subsequently the young male changes into the plumage of the adult, except that the breast, flanks and sides of the abdomen are barred with slaty. The young female is more barred below, the bars extending up to the chin.

Iris hazel-brown to lake; eyelids grey; inside of mouth flesh-colour; bill, legs and claws black.

Length 12 inches, tail 5·8, wing 7, tarsus 1·1, bill from gape 1·5. The female is quite as large as the male.

This bird varies excessively in plumage and in size; the former varies according to age and sex, and the latter according to locality. The largest birds occur, as a rule, in Burmah and Northern India, and the smallest in Ceylon, where some birds have the wing less than 6 inches in length.

Artamides sumatrensis, closely allied to this species, but smaller in size, occurs in the Malay peninsula. It has a very large bill and its plumage is much the same as *G. macii*, but there is no black on the face of the male.

G. rexpineti, from China, may be distinguished by the under wing-coverts being buff-coloured.

The Indian Cuckoo-Shrike is spread over the whole of British Burmah. Mr. Blyth records it from Arrakan, and I have myself procured it on the hills in that Division. It is common over the whole of Pegu and extends, according to Capt. Wardlaw Ramsay, into Karennee, where he found it at elevations of from 2500 to 4000 feet. Mr. Davison states that it is spread over the whole of the Tenasserim Division, becoming rare in the extreme south. It is not known how far it extends down the Malay peninsula, but Dr. Tiraud states that it is found in Cochin China.

To the north it is probably distributed over the whole of the Indo-Burmese countries. Dr. Anderson got one specimen at Tsagain near Mandalay. It has been procured frequently in various parts of the hill-ranges of Eastern Bengal and in Assam. To the west it is diffused over the whole Indian peninsula, Ceylon and the Andaman Islands, and its range along the Himalayas extends to about the Sutlej river.

This species frequents the larger trees in thin tree-jungle, especially those which are thickly foliaged, and it does not seem to be found much in thick forests. It feeds principally on insects which it picks off the leaves, but when the peepul-tree is in fruit several birds may generally be observed on it. Mr. Davison states that this Cuckoo-Shrike has a fine whistling call, but I do not remember to have heard it.

It probably breeds in Burmah at the commencement of the rains. The nest, which in India is constructed of fine twigs and grass, is placed in the fork of a lofty branch, and the eggs are greenish marked with brown and pale purple.

Genus CAMPOPHAGA, Vieill.

221. CAMPOPHAGA SATURATA.

SWINHOE'S CUCKOO-SHRIKE.

Volvocivora saturata, Swinh. *Ibis*, 1870, p. 242; *David et Oust. Ois. Chine*, p. 103.

Volvocivora intermedia, Hume, *S. F.* v. p. 205, viii. p. 91. *Campophaga saturata*, Sharpe, *Cat. Birds B. Mus.* iv. p. 66.

Description.—*Male*. General colour dark slaty grey, paler below, the feathers of the crown with black shafts and the under tail-coverts more or less fringed with white; lesser wing-coverts like the back; remaining coverts and the whole wing deep glossy black; tail deep black, all the feathers tipped with white, broadly on the outer ones and the amount decreasing in extent interiorly.

The *old female* does not differ from the male, except in being slightly paler. Until the birds get very old there are traces of a white patch on the fourth and fifth primaries; but these traces eventually disappear.

The *young* have the upper plumage similar to that of the adult female, but the back and rump are generally tinged with russet; the ear-coverts have conspicuous white shaft-stripes; the lower plumage is closely barred with fine lines of brown, and the portion from the breast downwards is russet-grey conspicuously paler than the throat and breast; the wings are dark brown, each feather finely edged with grey or greyish white; there is a large patch of white on the third, fourth, fifth and sixth primaries, which gradually becomes smaller and finally disappears. I am not certain whether young males have this white patch, but young females certainly have.

Bill, feet and claws black; iris hazel-brown; eyelids grey; inside of the mouth flesh-colour.

Length 9·5 inches, tail 4·5, wing 4·8, tarsus ·85, bill from gape 1. The female is rather smaller.

This is merely a race of the Indian *C. melaschista* (*C. lugubris*, Sund.), and can only be distinguished from it when adult by its slightly paler colour. It is hardly worthy of separation, perhaps, when adults only are compared, but the differences are more striking in the immature birds. In young *C. melaschista* the whole lower plumage is dark brown, unicolorous from the chin to the vent; whereas in *C. saturata* the lower plumage is iron-grey, becoming conspicuously paler on the abdomen and vent. In very young *C. melaschista* the upper plumage is barred with white; and I do not think that this is ever the case with *C. saturata*. In a considerable series of young birds from Burmah I cannot discover a trace of white bars on any portion of the upper plumage.

I have compared three of Mr. Swinhoe's birds from Hainan with a large

series of *C. saturata* from Burmah, and I have no doubt whatever about their identity.

This bird was first obtained in the island of Hainan by Mr. Swinhoe, and does not appear to have been procured by him in any other part of China. Dr. Tiraud states that it is found in Cochin China.

Mr. Davison found it all over the Tenasserim Division as far down as Mergui, which is probably its southern limit.

In Pegu it is universally spread over the whole Division. I have found it and *C. melanoptera* in much the same localities; but whereas the latter is commonest in the northern portions, the reverse is the case with *C. saturata*.

The species of this genus appear to have much the same habits. They are generally seen singly or in couples, closely searching the leaves of large trees for caterpillars and other insects. They appear to be remarkably silent; and I have never heard either of the two species with which I am acquainted utter a note. None of them, as far as I know, are migratory. The plumage is soft, except the feathers of the rump, the shafts of which, as is the case with all the members of the *Campophagidæ*, are rigid. A short account of the nidification of *C. sykesi* will be found below.

222. CAMPOPHAGA MELANOPTERA.

BLYTH'S CUCKOO-SHRIKE.

Ceblepyris melanoptera, Rüpp. Mus. Senckenb. iii. p. 25, tab. ii. f. 1. *Campephaga melanoptera*, Bl. J. A. S. B. xv. p. 307. *Campephaga avensis*, Bl. Cat. B. Mus. As. Soc. Beng. p. 327. *Volvocivora avensis*, Bl. B. Burm. p. 123; Hume, S. F. iii. p. 93, v. p. 205, viii. p. 91. *Campophaga melanoptera* (Rüpp.), Sharpe, Cat. Birds B. Mus. iv. p. 67.

Description.—*Male*. Like the male of *C. saturata*, but with the grey pale and pure. It differs also in the following respects:—The central tail-feathers are washed with grey on the basal half, the vent and under tail-coverts are pure white, and the white tips to the tail-feathers are larger; it is also a smaller bird.

The *female* is probably, when old, very similar to the male; but all the females I have ever procured are barred below. The upper plumage is as pure a grey as in the male, and the shafts of the feathers of the head as black; the rump and upper tail-coverts are paler and the feathers paler margined and indistinctly barred; the lower plumage is greyish white, barred everywhere with ashy, the bars being rather wide apart and very distinct; the ear-coverts have very conspicuous white shaft-streaks; the

wings are ashy brown, all the feathers edged with grey; there is a white patch on the primaries; the tail is very dark brown, the centre pair of feathers nearly wholly ashy, and the white tips are of the same extent as in the male. One female has lost all the bars on the vent and under tail-coverts; and on the whole I am inclined to think that the female, when old, is similar to the male.

The *young* are probably like the female as described above, but when very young may probably be barred above; but I have never met with quite young birds.

Bill and legs black; iris hazel- or reddish-brown; eyelids plumbeous; inside of the mouth flesh-colour; claws horn-colour.

Length 9 inches, tail 4·3, wing 4·3, tarsus ·9, bill from gape ·9. The female is smaller.

Blyth's Cuckoo-Shrike is spread over the whole of Pegu, but is commoner in the northern portions than elsewhere. Mr. Blyth states that it is common in Arrakan. Capt. Wardlaw Ramsay procured it in Karennee, and Mr. Davison found it in Tenasserim as far south as Moulmein. I cannot discover that any of Mr. Swinhoe's specimens now in Mr. Seeböhm's collection are *C. melanoptera*, as stated by Mr. Sharpe. Dr. Tiraud, however, gives it from Cochin China; and it may probably occur in China.

223. CAMPOPHAGA NEGLECTA.

DAVISON'S CUCKOO-SHRIKE.

Volvocivora neglecta, Hume, *S. F.* v. p. 203, viii. p. 91. *Campophaga neglecta*, Sharpe, *Cat. Birds B. Mus.* iv. p. 68. *Campophaga polioptera*, Sharpe, *Cat. Birds B. Mus.* iv. p. 69, pl. ii.

Description.—*Male*. Precisely similar to the male of *C. melanoptera*, but with the grey a shade darker, especially on the head; a patch of white on the primaries.

The *female* is also precisely similar to the female of *C. melanoptera*, and all that I have said about the female and young of that species applies equally to those of this species. Mr. Hume, however, states that two old females were exactly similar to the old male, which he describes in detail. If these females were correctly sexed, it is conclusively proved that both sexes, when adult, are alike; and the same inference may safely be drawn regarding *C. melanoptera*.

Length 8 inches, tail 3·5, wing 4, tarsus ·75, bill from gape ·8. The female is rather smaller.

I have examined the types of *C. polioptera* in the British Museum, and find them to be females of the present species.

Attention should be paid by field-ornithologists to the various changes of plumage in this and other birds of the genus. One fine adult bird of this species, sexed as a male, and procured at Malewoon by my men, has a large patch of pure white on the wing. Another bird, a female with barred under plumage, wants this patch. Five other birds, apparently females, all with barred under plumage, have the patches of white on the wings large. In this species, therefore, it appears that the adult male has white on the wing, which is not the case with any other species of the genus.

This species was discovered in Tenasserim by Mr. Davison, and he procured it from Mergui down to Malewoon. In the British Museum are specimens from Cochin China (*C. polioptera*, Sharpe).

224. CAMPOPHAGA INNOMINATA.

HUME'S CUCKOO-SHRIKE.

Volvocivora vidua (Hartl.), *apud Hume, S. F. v. p. 206; Hume & Dav. S. F. vi. p. 508; Hume, S. F. viii. p. 91.*

I am unable to refer to any species known to me the *Volvocivora* which Mr. Davison procured in Tenasserim, and which Mr. Hume refers to *V. vidua* of Hartlaub. This latter bird is undoubtedly *V. fimbriata* of Temminck. I have examined a considerable number of this species from Java, and find that in no case does the wing exceed 4·1 inches in length. Not only has Mr. Sharpe carefully catalogued these Cuckoo-Shrikes, but I have myself spent much time over them with a very large number of specimens before me, and I am of opinion that Mr. Davison's birds are unnamed.

The following is Mr. Hume's account of the Tenasserim birds:—

“From the neighbourhood of Tavoy we have a series of *Volvocivora* which cannot be referred to either *V. melaschista*, *V. neglecta*, *V. intermedia*, or *V. culminata*, or even *V. avensis*. They are paler than *V. intermedia* and *à fortiori* than *V. melaschista*. They are darker than *V. avensis* and considerably larger; very much larger, too, than *V. neglecta* and quite differently coloured to *V. culminata*. They answer precisely, with one exception, to Hartlaub's description of *V. vidua* (see *S. F. v. p. 206*), that exception being that generally the *two* outer pairs of tail-feathers, and sometimes *three*, have comparatively narrow white tippings, and they are *apparently* too large for *V. vidua*, of which the wing is given at 4·12.

“In these Tavoy birds the wings vary from 4·65 to 5·0, and an old female has the wing 4·85.

“Possibly the wing in Hartlaub's type was imperfect, otherwise the paler rump, the paler under surface, the under wing-coverts concolorous

with the *back*, the faint barring on the rump, the very small amount of white on the tail, all point to *V. vidua*, and for the present I propose to enter these as *Volvocivora vidua*, Hartl."

I append a description of *C. fimbriata* from Java for comparison :—

Male. The whole body-plumage dark slaty grey, darkest on the crown and sides of the head and paler below ; lesser wing-coverts black edged with slaty grey ; the other wing-coverts and the quills black glossed with steely blue on the edges ; tail black, the outer two pairs of feathers distinctly, the next pair very narrowly, tipped with white.

Female. General colour above light slaty grey, rather darker on the head and paler on the upper tail-coverts, the feathers of which are tipped with white ; ear-coverts slaty grey, the shaft and portion adjacent being white ; the whole lower plumage greyish white, closely barred across with dusky ; the bars on the vent and under tail-coverts rather wider apart and interrupted ; lesser wing-coverts brown with broad ashy edgings ; the other coverts and all the quills brown with narrow edges of ashy white, paler on the primaries ; tail dark brown, tinged with ashy on the central two pairs of feathers ; the outer two pairs broadly tipped with white and also barred diagonally with one or two bars of dusky ; the other tail-feathers narrowly tipped with white.

Length 8·5 inches, tail 3·7, wing 4, tarsus ·78, bill from gape ·9. The female is rather smaller.

Mr. Davison procured this species at Tavoy, and it has not been found as yet in any other portion of Tenasserim.

An allied species, but smaller even than *C. fimbriata*, is found in the Malay peninsula, Sumatra and Borneo, *C. culminata*, A. Hay.

225. CAMPOPHAGA SYKESI.

THE BLACK-HEADED CUCKOO-SHRIKE.

Lalage sykesi, Strickl. *Ann. Nat. Hist.* ser. 1, xiii. p. 36 ; Legge, *Birds Ceylon*, p. 369 ; Sharpe, *Cat. Birds B. Mus.* iv. p. 89. *Volvocivora sykesii*, Jerd. *B. Ind.* i. p. 414 ; Hume, *Nests and Eggs*, p. 179 ; Bl. *B. Burm.* p. 123 ; Hume, *S. F.* viii. p. 91.

Description.—*Male*. The head, neck, upper back, chin, throat and upper breast black ; lower breast and sides of the body grey ; abdomen, vent and lower tail-coverts white ; back, scapulars, lesser wing-coverts, rump and upper tail-coverts grey, the tail-coverts paler margined ; median wing-coverts chiefly black, the tips and the terminal halves of the outer webs grey ; greater coverts black narrowly margined with grey ; primary-coverts all black ; quills black, the primaries with a large patch of white

on the inner webs and narrowly margined with white on the outer; the secondaries more broadly margined and all tipped with the same; central tail-feathers grey, the others black broadly tipped with white.

Female. The upper plumage including the head grey, becoming lighter on the rump and upper tail-coverts, which are cross-barred with dusky; cheeks, sides of neck and the whole lower plumage whitish, closely and narrowly barred with black, the bars becoming obsolete on the abdomen; vent and under tail-coverts pure white; wing-coverts and quills dark brown, each feather margined with greyish white; ear-coverts greyish mottled with brown, and the shafts white; tail with the central pair of feathers grey narrowly tipped with white; the other feathers blackish brown broadly tipped with white, the white tippings on the outer feathers being mottled diagonally with brown.

The *young* of both sexes are very similar to the adult female, but when very immature the feathers of the nape are barred with blackish and tipped with white. The black head of the male is assumed very slowly.

Iris brownish red; bill black; legs and feet black, with slaty edges to the scales of the tarsi; claws black. (*Legge.*)

Length 7·5 inches, tail 3, wing 4, tarsus ·8, bill from gape ·85. The female is of about the same size.

I introduce this species into the Burmese list on the authority of Mr. Blyth, who states that it occurs in Upper Pegu. I have never met with it, but this of course is no reason for doubting its occurrence there. It is found in Eastern Bengal, and is a most likely species to occur in Burmah.

This bird cannot be confounded with any other species of the genus likely to be found in Burmah. Mr. Sharpe has described a closely allied race from Madras under the name of *Lalage melanothorax*. It differs in being larger and in having the black of the neck extending much further down on the breast and back.

The Black-headed Cuckoo-Shrike, according to Mr. Blyth, has occurred in Upper Pegu, and I cannot find that it has been recorded from any other part of British Burmah.

It is spread over the whole peninsula of India and Ceylon, and will probably be found in the countries intervening between India and British Burmah.

Mr. Blewitt found the nest of this species in Bundelkund in July. It was placed at the end of two small outshooting branches of a mowa-tree, and was slightly made of thin twigs and roots, and partially covered with spider's web. The two eggs in it were green mottled with dark brown.

Genus PERICROCOTUS, *Boie*.

226. PERICROCOTUS ELEGANS.

MACCLELLAND'S MINIVET.

Phœnicornis elegans, *M'Clell. P. Z. S.* 1839, p. 156. *Pericrocotus elegans*, *Hume, S. F.* iii. p. 95; *Sharpe, S. F.* iv. p. 206; *Hume, S. F.* v. p. 194; *Anders. Yunnan Exped.* p. 648; *Sharpe, Cat. Birds B. Mus.* iv. p. 73; *Hume, S. F.* viii. p. 91. *Pericrocotus fraterculus*, *Swinh. Ibis*, 1870, p. 244. *Pericrocotus speciosus*, *Bl. & Wald. B. Burm.* p. 123.

Description.—*Male*. Whole head, back, scapulars and lesser coverts glossy black; remainder of lower surface, rump, upper tail-coverts and under wing-coverts scarlet; greater coverts black very broadly tipped with scarlet; primaries black with a band of scarlet *across all but the first three*; secondaries scarlet at the base and black on the remainder; the later secondaries with a scarlet oval drop near the extremity of the outer webs; tertiaries plain black; tail scarlet, excepting the inner webs of the central pair of feathers, which are black.

Female. Forehead, paling posteriorly up to the crown of the head, the sides of the head and the whole lower plumage yellow; rump and upper tail-coverts yellow tinged with green; back of the head, back, scapulars and lesser coverts deep grey; greater coverts blackish tipped with grey; primaries dark brown, with a band of yellow *across all but the first three*; secondaries dark brown, the bases of all bright yellow; the later secondaries with an oval yellow spot near the tips of the outer webs; tertiaries plain dark brown; central tail-feathers black; the next pair black, with the terminal half of the outer web yellow; remaining feathers yellow with the bases black.

The *young* are coloured like the female, but have the forehead tinged with orange at a very early age.

Bill and legs black; inside of mouth flesh-colour; iris dark brown; eyelids grey; claws dark horn.

Length 8 inches, tail 3·6, wing 3·7, tarsus ·75, bill from gape ·9. The female is a trifle shorter.

This species differs from *P. speciosus* of India in being much smaller and in having, as a rule, the outer webs of the central tail-feathers red, whereas in *P. speciosus* these are either entirely black or with only a patch of red on them.

P. fraterculus from China is of the same size as *P. elegans*, and similar to it in all respects except that the whole of the central tail-feathers are black. It is undoubtedly a race of *P. elegans* and not of *P. speciosus*.

In British Burmah this species is found over the whole of Pegu. I have

seen it in every portion of the Division. It is probably common over the whole of Arrakan, but I can find no record of its occurrence there. Capt. Wardlaw Ramsay procured it in Karennee. Mr. Davison states that it is common in Tenasserim as far south as Tavoy; thence occurring even down to Malewoon, but comparatively rare in the extreme southern portion. It also occurs in the Thoungyeen valley.

Outside British Burmah it is spread over a large tract of country. Dr. Anderson found it common at and around Bhamo. It has also been found in Cachar, Tipperah and the whole of Assam. Mr. Swinhoe records the race *P. fraterculus* from Hainan, and Mr. Sharpe gives Siam and Cochin China as localities where it is found, and Dr. Tiraud records *P. elegans* from the latter country.

The Minivets are a group of brightly coloured birds, the males being for the most part clothed in black and red and the females in yellow. They associate in small flocks and traverse the forests in search of their insect food, hopping restlessly from branch to branch with a low pleasant twitter. They feed entirely on the small insects which lie concealed in the bark and on the leaves. Some of the species come into gardens and are not at all shy. The present gorgeous species is perhaps the best known of all, and is styled "Hgnet-Min-Tha," or the Prince-bird, by the Burmese. They make very beautiful nests: a brief description of the nidification of *P. peregrinus* will be found below.

227. PERICROCOTUS FLAMMIFER.

DAVISON'S MINIVET.

Pericrocotus flammifer, Hume, *S. F.* iii. p. 321 (footnote), v. p. 195, viii. p. 91; Sharpe, *Cat. Birds B. Mus.* iv. p. 74.

Description.—*Male.* The whole head, neck, back, scapulars, lesser wing-coverts and primary-coverts deep glossy black; primaries black, *all but the first three* with a scarlet patch; secondaries black, with the bases scarlet; tertiaries black, each feather with a scarlet mark near the tip of the outer web; greater wing-coverts black, broadly tipped with scarlet; rump, upper tail-coverts, under wing-coverts and the whole lower plumage from the neck downwards scarlet; tail scarlet, except the central pair of feathers, in which the whole inner web and the base of the outer are black.

Female. Forehead, front of head, cheeks, lower back, rump, upper tail-coverts and the whole lower plumage bright yellow; remainder of head, back, scapulars and lesser wing-coverts^{*} ashy brown tinged with green; greater coverts dark brown, tipped yellow; wing dark brown, marked like

that of the male, but the scarlet replaced by yellow; central pair of tail-feathers black, with a slight margin of yellow towards the end of the outer webs; the next pair black, the terminal half of the outer web and the tip of the inner yellow; the other feathers yellow, with black bases; lores blackish; ear-coverts mixed yellow and ashy.

The *young* resemble the female, but have the feathers of the head marked with whitish.

Length 7·3 inches, tail 3·1, wing 3·4, tarsus ·65, bill from gape ·85. The female is barely smaller.

This species appears to be a very distinct one. It differs from *P. xanthogaster* (*P. ardens*), its nearest ally, which occurs in the Malay peninsula, in being larger and in having the first three primaries in the male unmarked with red on the outer web, as against four in *P. xanthogaster*.

Davison's Minivet has been observed in Burmah only in the extreme south of Tenasserim, at Bankasoon and Pakchan. Mr. Davison appears to have found it common in these localities; and my men also got several specimens at Malewoon. It occurs in the Malay peninsula; for Dr. Stoliczka notes a bird from Prov. Wellesley which can only be this species; and Mr. Hume states that it occurs in the Tonka Islands and Singapore.

228. PERICROCOTUS SOLARIS.

THE YELLOW-THROATED MINIVET.

Pericrocotus solaris, *Bl. J. A. S. B.* xv. p. 310; *Jerd. B. Ind.* i. p. 422; *Blanf. J. A. S. B.* xli. pt. ii. p. 47; *Sharpe, S. F.* iv. p. 210; *Hume, S. F.* v. p. 186; *Sharpe, Cat. Birds B. Mus.* iv. p. 82; *Hume, S. F.* viii. p. 91.

Description.—*Male.* The lores, the whole upper part of the head, the neck, back, scapulars and lesser wing-coverts leaden black; chin, cheeks and ear-coverts grey; throat orange-yellow; remainder of the lower plumage, with the rump and upper tail-coverts, scarlet; greater coverts black, tipped with scarlet; primaries black, *all but the first four* with a red patch; secondaries and tertiaries black, with scarlet bases; central tail-feathers black, the outer webs with a narrow red margin on the outer web near the tip; the next pair black, the terminal two thirds of the outer web red, as also the tip of the inner web; the remaining tail-feathers red, with black bases.

Female. Head, neck and upper back ashy; lower back tinged with green; rump and upper tail-coverts yellowish green; cheeks, ear-coverts and chin light grey; the whole lower plumage bright yellow; lesser wing-coverts brown, edged with green; greater coverts brown, tipped with

yellow ; wings dark brown, the marks being yellow instead of scarlet, but similar in shape to those of the male ; tail as in the male, but the scarlet replaced by yellow.

The bill, legs, feet and claws black ; the irides deep brown. (*Davison*.)

Length 7 inches, tail 4, wing 3·4, tarsus ·6, bill from gape ·6. The female is the same size.

A very closely allied species occurs in China—*P. griseogularis*, Gould. It will most probably be found to occur in Burmah. It has the entire throat grey and the upper plumage darker than in *P. solaris*.

The Yellow-throated Minivet has been procured in Pegu by myself near the village of Kyeikpadein. It seems to be very rare in this part of the province. Mr. Davison procured it in Tenasserim near Thatone and round the base of Mooleyit mountain.

Out of Burmah it is found in the hill-tracts of Eastern Bengal and, according to Dr. Jerdon, in Assam. It has frequently been got in Sikhim, and it extends into Nipal. Major Biddulph procured one specimen in Cashmeer.

229. PERICROCOTUS IGNEUS.

THE FIERY MINIVET.

Pericrocotus igneus, *Bl. J. A. S. B.* xv. p. 309 ; *Salvad. Ucc. Born.* p. 144 ; *Sharpe, S. F.* iv. p. 209 ; *David et Oust. Ois. Chine*, p. 105 ; *Hume, S. F.* v. p. 190, viii. p. 91 ; *Sharpe, Cat. Birds B. Mus.* iv. p. 78 ; *Wardlaw Ramsay, Tweedd. Mem.*, App. p. 656. **Pericrocotus minutus**, *Strickl. Contr. Orn.* 1849, pl.

Description.—*Male*. The whole head, chin, throat, back, scapulars and lesser wing-coverts glossy black ; the remainder of the lower plumage, the rump and upper tail-coverts crimson ; greater coverts black, tipped with crimson ; primaries black, *all but the first four* with scarlet marks across them ; secondaries black, with orange bases ; tertiaries wholly black ; under wing-coverts and axillaries yellow, tipped with red ; central tail-feathers black ; the next pair black, with some red at the tip ; the remaining feathers red, except the bases, which are black.

Female. The forehead, feathers round the eye, the under wing-coverts and all the lower plumage bright yellow ; crown of the head, back, wing-coverts and scapulars ashy, tinged with green ; rump and upper tail-coverts bright scarlet ; wing as in the male, the scarlet being replaced by orange-yellow ; tail as in the male, but the red paler.

Length 6·5 inches, tail 3, wing 3, tarsus ·6, bill from gape ·7. The female is of about the same size.

The Fiery Minivet has been found in the extreme south of Tenasserim in the neighbourhood of Pakchan, where it was procured by Mr. Davison.

It has been shot in Malacca, Johore and Singapore, and also in the islands of Borneo, Sumatra and Palawan.

These birds are found in China. Père David remarks that a great number pass the summer in the wooded mountains of Western China and Moupin, and they breed and stay there till the beginning of the winter.

230. PERICROCOTUS BREVIROSTRIS.

THE SHORT-BILLED MINIVET.

Muscipeta brevirostris, *Vig. P. Z. S.* 1831, p. 43. **Pericrocotus brevirostris**, *Jerd. B. Ind.* i. p. 421; *Stoliczka, J. A. S. B.* xxxvii. pt. ii. p. 27; *Beavan, Ibis*, 1870, p. 314; *Hume, Nests and Eggs*, p. 183; *Bl. B. Burm.* p. 123; *Sharpe, S. F.* iv. p. 209; *David et Oust. Ois. Chine*, p. 104, pl. 78; *Hume, S. F.* v. p. 187; *Hume & Dav. S. F.* vi. p. 211; *Anders. Yunnan Exped.* p. 648; *Hume, S. F.* viii. p. 91; *Scully, S. F.* viii. p. 268; *Sharpe, Cat. Birds B. Mus.* iv. p. 79; *Scully, Ibis*, 1881, p. 435.

Description.—*Male.* The whole head, back, scapulars, lesser wing-coverts, sides of the head and throat glossy black; entire lower surface, rump and upper tail-coverts crimson; greater coverts black, tipped with crimson; primaries black, *all except the first four* with a crimson patch upon them; secondaries crimson on the basal half and black on the terminal half; tertiaries wholly black; central tail-feathers black; the next pair black, with the greater portion of the outer web red; the others all red, except at the bases, where they are black.

Female. Forehead, rump, upper tail-coverts and all the lower plumage yellow; ear-coverts greyish yellow; crown of the head, back and scapulars ashy green; lesser wing-coverts brown, edged with green; median and greater coverts brown, tipped with yellow; wing brown, marked with yellow in the same manner as the male is marked with red; tail also as in the male, the red being replaced by yellow.

Bill and legs black; irides dark brown. (*Jerdon.*)

Length 7·5 inches, tail 4, wing 3·5, tarsus ·6, bill from gape ·75. The female is a trifle smaller.

The intensity of the colouring of this species varies much according to locality. Those from Sikhim and Assam and the tract of country reaching down to Tenasserim are a deep crimson, whereas specimens from the west of these countries are a dull scarlet.

Mr. Hume has recently separated, under the name of *P. neglectus*, some birds which Mr. Davison procured in the hills of Central Tenasserim. I have not been able to examine Mr. Hume's specimens; but, judging from what that gentleman says of them, they appear to me to constitute a very doubtful species. Three birds shot by Capt. Wardlaw Ramsay in Karennee

may belong to this new species. The female has the chin and throat a brighter yellow than is usual in *P. brevirostris*, and the upper plumage a duller ash; but it is, after all, barely distinguishable from numerous examples of the Indian bird. I append a description of *P. neglectus* in Mr. Hume's own words*.

Mr. Blyth gives Arrakan as a locality for this species. I have never met with it myself, either in that Division or in Pegu. Capt. Wardlaw Ramsay procured it in Karennee at 3000 feet elevation; and Mr. Davison secured an imperfect specimen in the pine-forests of the Salween, about which Mr. Hume entertains doubts as to whether it may not be *P. neglectus*.

Out of British Burmah it has a very extensive range. It was procured to the east of Bhamo by Dr. Anderson. Thence it seems to occur throughout the hill-ranges of Eastern Bengal and along the whole Himalayan range to Cashmeer. Capt. Wardlaw Ramsay observed it in Afghanistan; and it has been procured in North Guzerat and the Deccan, which appears to be about its southern limit.

To the east it is found in China. Père David says that it passes Peking on migration; some couples nest in the wooded mountains of this province, but the majority pass the summer in Mantchuria.

231. PERICROCOTUS CINEREUS.

THE ASHY MINIVET.

Pericrocotus cinereus, Lafres. Rev. Zool. 1845, p. 94; Sharpe, S. F. iv. p. 211; Hume, S. F. v. p. 175; David et Oust. Ois. Chine, p. 137; Sharpe, Cat. Birds B. Mus. iv. p. 83; Oates, S. F. x. p. 200. **Pericrocotus modestus**, Strickl. P. Z. S. 1846, p. 102. **Pericrocotus motacilloides**, Swinh. P. Z. S. 1860, p. 58.

Description.—*Male*. Forehead, front of the head, cheeks, sides of the neck, chin, throat and under tail-coverts pure white; remainder of lower

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PERICROCOTUS NEGLECTUS.

HUME'S MINIVET.

Pericrocotus neglectus, Hume, S. F. v. p. 189; Sharpe, Cat. Birds B. Mus. iv. p. 80; Hume, S. F. viii. p. 91.

"It is clearly a miniature representative of *P. brevirostris*, and like it has the first four primaries in both sexes plain on the outer webs.

"The total length varies from 6.5 to 6.8; the tail from 3.0 to 3.25; the wings varied—males' 3.25, 3.3, females' 3.2, 3.37, 3.32.

"Seeing, however, that the Eastern form of *P. brevirostris* is smaller than the Western, I should not have separated these birds, though much smaller than the smallest Sikhim

plumage white, shaded with ashy on the sides and with pale buff on the breast and belly; the feathers immediately at the base of the upper mandible, the lores, a thin rim round the eyes, the top of the head and nape deep black; back, scapulars, rump and upper tail-coverts dark ashy; primary wing-coverts black; wing-coverts blackish brown, edged with ashy and the greater coverts tipped white; primaries dark brown, with an incomplete whitish bar crossing the feathers obliquely; secondaries brown, the bases all white, forming a large spot; tertiaries ashy brown, the outer webs edged with white; under wing-coverts white; tail black, the four outer pairs of feathers with very broad white oblique tips; the shafts of all the tail-feathers black.

Female. Similar to the male, but the black of the head is wanting, the whole upper plumage being uniform ashy; the forehead is not white, but ashy, uniform with the other parts of the upper plumage; the tail is brown; the under plumage is clouded with brown.

The *young* appear to resemble the female.

Length 8 inches, tail 4, wing 3·8, tarsus ·6, bill from gape ·8. The female does not appear to differ in size from the male.

I have met with this species at Kyeikpadein, near Pegu, in the cold weather. It is apparently a rare bird, and has not been procured in any other part of British Burmah.

It has a very wide range. In China, according to Mr. Swinhoe, it occurs from the south to Peking. Père David states that it is found in Eastern China extending up to Mantchuria, and he adds that it disappears in winter from these parts. Von Schrenk notes it from Amoorland, and Radde gives it from East Siberia. There is a specimen from Yokohama in Mr. Seebohm's collection; and Messrs. Blakiston and Pryer found it in Fujisan and Yamato in Japan. It has occurred in the Philippines, Borneo and Sumatra; and Mr. Davison procured it at various places in the Malay peninsula.

and Shillong specimens, merely on account of difference of size. Nor would the proportionally much larger bill have satisfied me of their distinctness, nor even the fact that in both my males the black of the throat appears to descend further on the breast than in any one of forty-six males of *P. brevirostris*, as this might be due to some stretching of the skin in preparing it; but when with these differences is coupled a female of a wholly different type, with the upper surface of a much darker grey and with the chin, throat and entire lower surface of the rich bright hue of adult female *P. speciosus*, a hue not approached, as regards chin and throat at any rate, by any one of the twenty-seven female *P. brevirostris* now before me, I could not avoid recognizing what is clearly a distinct species."

Hume's Minivet has been procured only in the hill-forests of Tenasserim on Mooleyit and at Meetan.

232. PERICROCOTUS CANTONENSIS.

SWINHOE'S MINIVET.

Pericrocotus cantonensis, *Swinh.* *Ibis*, 1861, p. 42; *Sharpe*, *S. F.* iv. p. 211; *David et Oust.* *Ois. Chine*, p. 107; *Hume*, *S. F.* v. p. 177; *Sharpe*, *Cat. Birds B. Mus.* iv. p. 84; *Oates*, *S. F.* x. p. 200. *Pericrocotus sordidus*, *Swinh.* *P. Z. S.* 1863, p. 284. *Pericrocotus immodestus*, *Hume*, *S. F.* v. p. 177, viii. p. 91; *Bingham*, *S. F.* ix. p. 173.

Description.—*Female*. Forehead and front of crown, feathers round the eye, the cheeks, sides of the neck, chin and throat whitish; head, neck, scapulars and back earthy brown; rump and upper tail-coverts light brown, very much paler than the back; wings and wing-coverts blackish brown, paler on the edges; the primaries with an oblique mark of yellowish white on both webs, the secondaries with a yellow patch at their bases forming a conspicuous spot on the closed wing; under wing-coverts and axillaries pale yellow; breast, belly, vent and under tail-coverts pale buffy brown; tail-feathers dark brown, the four outer pairs very broadly tipped with whitish yellow, and the shafts of all hair-brown; lores dark brown.

Male. Very similar to the female, but the white of the head and throat pure; the head and back dark ashy brown; the bar across the primaries white; and the bases of the secondaries white tinged with brown, and occasionally with very pale yellow; lores very dark brown.

The *young* resemble the female, but have the dull wing-marks of the male.

Bill and legs black; inside of the mouth flesh-colour; eyes hazel. (*Swinhoe*.)

Length 8 inches, tail 3·7, wing 3·5, tarsus ·55, bill from gape ·75. The female is of the same size.

I have no hesitation in joining Mr. Hume's *P. immodestus* to this species. I have not been able to examine any of his specimens; but his description of the upper plumage of the bird, in which he notes that the rump and upper tail-coverts are a pale fawn-colour in contrast with the back, coupled with the fact that my men obtained in Southern Tenasserim (where *P. immodestus* was procured) a specimen in which this feature is strikingly conspicuous, and which is identical with Swinhoe's types in Mr. Seebohm's collection, leave no doubt in my mind on the point.

Swinhoe's Minivet occurs during the cold season in the Pegu Division, where I procured it near Kyeikpadein. Mr. Davison met with it in the extreme southern portion of Tenasserim and at Mergui, and Capt. Bingham in the Thoungyeen valley. It has not yet been found in any other part of British Burmah.

Of its distribution in China, Mr. Swinhoe remarks :—" Northwards to Foochow and westwards to Szechuen." Père David says :—"It is found commonly in spring in the interior of Tchékiang and Kiangsi, where it breeds in great numbers. In autumn it quits Central China for the Indo-Chinese countries."

233. PERICROCOTUS ALBIFRONS.

JERDON'S MINIVET.

Pericrocotus albifrons, *Jerd. Ibis*, 1862, p. 20; *Bl. B. Burm.* p. 124; *Hume, S. F.* iii. p. 96; *Sharpe, S. F.* iv. p. 212; *Hume, S. F.* v. p. 178; *Sharpe, Cat. Birds B. Mus.* iv. p. 86; *Hume, S. F.* viii. p. 91.

Description.—*Male.* The forehead, a broad supercilium, cheeks, sides of the neck nearly meeting behind on the nape, chin and throat white; the lores, ear-coverts, top of head, back, scapulars, upper tail-coverts, lesser wing-coverts and primary-coverts glossy black; rump and breast orange-red; greater wing-coverts black broadly tipped with white, forming a broad band on the wing; primaries black, with an oblique patch of white on all but the first five feathers; secondaries black with the bases white; tertiaries white, with a large black oblique patch in the centre of each feather; breast, belly and under tail-coverts white; the two central pairs of tail-feathers wholly black; the others black, broadly tipped with white.

The *female* differs in having those parts sooty brown which are black in the male; the white parts are less pure, there is merely a trace of red on the rump, and the red is wholly wanting on the breast.

Bill and legs black; iris dark brown; eyelids grey; inside of mouth flesh-colour.

Length 6·5 inches, tail 3·4, wing 2·5, tarsus ·6, bill from gape ·54. The female is quite as large as the male.

This pretty species is deserving of generic separation from the others owing to the disproportionate length of the tail, which is longer than the wing by more than the length of the tarsus, whereas in the other species of *Pericrocotus* the tail and wing are about equal. I confine myself, however, to pointing this out without instituting a genus for its reception.

Jerdon's Minivet has a very limited range. First discovered at Thayetmyo by Dr. Jerdon, it has since remained a very local species. I have procured it at Palow, about fifteen miles south of Thayetmyo and in the

intervening tract. To the east it probably extends to Myohla or Tamagan. I have never seen it west of the Irrawaddy.

Mr. Blanford, who procured it at Thayetmyo, traced it as far as Pagan on the Irrawaddy, about one hundred and fifty miles above the frontier.

This small species is not infrequently seen in the immediate neighbourhood of the Thayetmyo Cantonment, in secondary jungle and low trees. It sometimes descends to the ground, an action which I have never observed in any of the other Minivets.

234. PERICROCOTUS PEREGRINUS.

THE SMALL MINIVET.

Parus peregrinus, *Linn. Syst. Nat.* i. p. 342. **Pericrocotus peregrinus**, *Jerd. B. Ind.* i. p. 423; *Hume, Nests and Eggs*, p. 184; *Salvad. Ucc. Born.* p. 145; *Bl. & Wald. B. Burm.* p. 124; *Hume, S. F.* i. p. 177, iii. p. 96; *Sharpe, S. F.* iv. p. 209; *Hume, S. F.* v. p. 179, viii. p. 91; *Oates, S. F.* viii. p. 166; *Legge, Birds Ceylon*, p. 366; *Sharpe, Cat. Birds B. Mus.* iv. p. 76. **Pericrocotus malabaricus** (*Gm.*), *Hume, S. F.* v. p. 182.

Description.—*Male.* Feathers at the base of the upper mandible, the lores and in front of the eye blackish brown; the whole head and neck, back and scapulars dull ashy; rump and upper tail-coverts scarlet; upper breast scarlet; lower breast and sides of the body scarlet, more or less mixed with yellow; abdomen whitish; vent and under tail-coverts yellow; central pair of tail-feathers black; the next pair also black, the others partly black and partly orange, the black occupying the base and increasing in extent interiorly; under wing-coverts yellow; wings dark brown, all the quills except the tertiaries and the first four primaries with an orange-yellow patch near the base, minute on the fifth primary but increasing in size interiorly; lesser wing-coverts ashy, margined paler; greater coverts dark brown, the middle ones tipped with orange-yellow; primary-coverts dark brown.

The *female* has the ashy of the upper parts lighter; the chin and throat whity brown; the breast white tinged with yellow; the abdomen, flanks, under wing-coverts, vent and under tail-coverts yellow; the wings paler brown, and the wing-spot yellow; the tail is as in the male, and the rump and upper tail-coverts are rather less brilliant.

The *young* are like the female, but the ashy portions of the upper plumage are edged with whitish.

Bill black; inside of the mouth flesh-colour; legs, toes and claws black.

Length 6 inches, tail 3, wing 2·65, tarsus ·6, bill from gape ·6. The female is of the same size.

My description is taken from a Burmese bird. The variations in colour in this species are very great according to locality. Birds from the dry portions of India, the North-west and Sindh are very pale-coloured, whilst birds from Southern India are extremely dark and vivid in coloration. Burmese birds seem to occupy an intermediate position.

Mr. Hume appears to think these differences almost sufficient for the establishment of two species—*P. peregrinus* standing for the northern one and *P. malabaricus* for the southern one. The Burmese race would belong to the latter. I do not, however, propose to keep the two races separate.

The Small Minivet is of general occurrence throughout Pegu and Arrakan, and is a constant resident in these Divisions. Capt. Wardlaw Ramsay procured it in Karennee. Mr. Davison found it in Tenasserim as far south as Sadyin on the Bopyin river, and he remarks that in that Division it keeps to the sea-coast, and is not found in the interior of the country.

I cannot find any notice of its occurrence in the Malay peninsula, but it is found in Borneo and Java. Lord Tweeddale gives it with doubt from S.E. Sumatra. In the British Museum there is a specimen from Saigon, and Dr. Tiraud mentions also that it is met with in Cochin China. It probably occurs all over the Indo-Burmese countries. It is found over the whole continent of India (except in the Himalayas), in Ceylon and in the Andaman Islands. Its western limit in India appears to be Scinde and the Jhilum river.

The Small Minivet is perhaps the most abundant and generally distributed of all. Its breeding-season commences about April, and nests may be found up to the end of June. The structure is a beautiful little cup made of very fine twigs, and coated thickly with cobwebs, to which are attached small pieces of bark and dead leaves. The whole bears a close resemblance to some of the excrescences so common on trees.

The nest is placed in a fork at the end of a bough high up and sometimes on a rather thick branch at a fork. The eggs, three in number, are pale green marked with reddish brown.

235. PERICROCOTUS ROSEUS.

THE ROSY MINIVET.

Muscicapa rosea, Vieill. *Nouv. Dict. d'Hist. Nat.* xxi. p. 486. *Pericrocotus roseus*, Jerd. *B. Ind.* i. p. 422; Hume, *Nests and Eggs*, p. 184; *Bl. B. Burm.* p. 124; Sharpe, *S. F.* iv. p. 210; Armstrong, *S. F.* iv. p. 317; Hume, *S. F.* v. p. 184; Anders. *Yunnan Exped.* p. 649; Sharpe, *Cat. Birds B. Mus.* iv. p. 81; Hume, *S. F.* viii. p. 91. *Pericrocotus intensior*, Hume, *S. F.* v. p. 185.

Description.—*Male.* Upper plumage ashy brown, darker on the head; the tips of the feathers on the rump and upper tail-coverts rosy red, varying in extent; wing-coverts dark brown, the greater ones tipped with scarlet; quills dark brown, all but the first four primaries with a scarlet patch across them; later secondaries and tertiaries brown, the outer webs partially margined with scarlet; sides of the head ashy; chin and throat whitish; remainder of lower plumage with axillaries and under wing-coverts rosy red; central tail-feathers blackish, the others red with blackish bases.

The *female* is paler ashy above, and the rump is without a trace of red; the portions which are red in the male are in the female everywhere replaced by pale yellow.

The *young* are coloured like the female.

Bill, legs and feet black; iris dark brown.

Length 7·2 inches, tail 3·5, wing 3·4, tarsus ·6, bill from gape ·75. The female is of about the same size.

This species varies much in intensity of colouring according to locality. Birds from the north-west of India are the palest, and those from Tenasserim the richest in colour.

The Rosy Minivet is found abundantly over the whole of Pegu. It extends in Tenasserim down to Mergui, south of which point Mr. Davison does not appear to have met with it. Capt. Wardlaw Ramsay did not procure it in Karennee, and probably it does not occur so far east. Mr. Blyth records it from Arrakan, over which Division it is probably common.

It appears to be spread over a large area north of British Burmah. Dr. Anderson procured it near Bhamo, which is perhaps its eastern limit, as it is not known to occur in China. Thence it occurs in the hill-ranges of Eastern Bengal and in Assam, being found also all along the lower ranges of the Himalayas up to Afghanistan. Its distribution in India south of the Himalayas appears to be extensive, for Dr. Jerdon states that it is found as far south as Travancore.

Family LANIIDÆ.

Subfamily LANIINÆ.

Genus LANIUS, *Linn.*

236. LANIUS NASUTUS.

THE BLACK-HEADED SHRIKE.

Lanius nasutus, *Scop. Del. Faun. et Flor. Insub.* ii. p. 85; *Tweedd. P. Z. S.* 1877, pp. 692, 758; *id. Trans. Z. Soc.* ix. p. 169. **Collurio nigriceps**, *Frankl. P. Z. S.* 1831, p. 117. **Lanius nigriceps**, *Jerd. B. Ind.* i. p. 404; *Bl. B. Burm.* p. 121; *David et Oust. Ois. Chine*, p. 95; *Anders. Yunnan Exped.* p. 644; *Hume & Dav. S. F.* vi. p. 202; *Cripps, S. F.* vii. p. 268; *Hume, S. F.* viii. p. 91; *Scully, S. F.* viii. p. 264; *Oates, S. F.* x. p. 199. **Lanius tricolor**, *Hodgs. Ind. Rev.* 1837, p. 446. **Collyrio nigriceps**, *Hume, Nests and Eggs*, p. 172.

Description.—*Male and female.* Whole head from the forehead to the nape, lores and feathers behind the eye black; feathers immediately below the nape ashy; back, scapulars, rump and upper tail-coverts chestnut; central pair of tail-feathers black, the others brown, becoming successively more and more rufous towards the outside, where they are broadly edged and tipped with pale rufous; cheeks, sides of head below the black, chin and throat white; breast and abdomen tinged with rufous; flanks, vent and under tail-coverts rather bright rufous; wing-coverts black; quills brown, edged with rufous and the primaries with a patch of light fulvous at their bases.

Iris dull reddish brown; eyelids pinkish plumbeous; bill dark horny black; the base of the lower mandible and the gape fleshy plumbeous; mouth flesh-colour; legs dark brown; claws black.

Length 9·7 inches, tail 5, wing 3·8, tarsus 1·2, bill from gape 1. The female is nearly of the same size.

The Black-headed Shrike appears to be generally distributed over Pegu and Arrakan. In the former Division it is abundant in the grassy plains which lie between the Pegu and the Sittang rivers. I also observed it at Prome, and Capt. Wardlaw Ramsay procured it at Tonghoo. Mr. Hume states that he has received it from the mouth of the Bassein river. Mr. Davison found it only in the northern portion of Tenasserim.

Out of Burmah this Shrike has an extensive range. Dr. Tiraud states that it is common in Cochin China. Mr. Blyth gives it from Siam, and it appears to be abundant in the Philippine Islands. It extends into China and through the Indo-Burmese countries into India, where it inhabits the

lower ranges of the Himalayas as far as Kumaon and the plains down to the Godavery river or thereabouts.

This Shrike is usually found in grass-plains and on the outskirts of secondary jungle and neglected gardens. It has the usual habits of Shrikes, perching on bare branches or high stalks of grass and pouncing on insects which crawl on the ground. It alights on the ground for brief periods only, just sufficiently long to enable it to capture its prey, and retreats quickly to its former station.

This species is apparently resident in Burmah throughout the year; but it is far commoner in the rains than at other times. I have not met with its nest. In Eastern Bengal it breeds from April to June, and it constructs a deep cup-shaped nest of grass with the flowering ends worked into the outside. The nest is placed in bamboo-clumps and thorny trees, sometimes at considerable heights from the ground. The eggs are usually five in number, greenish white marked with olive-brown.

There can be no doubt about the *Lanius nasutus* of Scopoli referring to this species. The bird is figured by Sonnerat, and the graduated tail with pale margins to the feathers is well drawn.

237. LANIUS TEPHRONOTUS.

THE GREY-BACKED SHRIKE.

Collurio tephronotus, Vigors, *P. Z. S.* 1831, p. 43. **Lanius tephronotus**, Jerd. *B. Ind.* i. p. 403; *Bl. B. Burm.* p. 121; *David et Oust. Ois. Chine*, p. 94; *Anders. Yunnan Exped.* p. 643; *Hume & Dav. S. F.* vi. p. 202; *Cripps, S. F.* vii. p. 267; *Hume, S. F.* vii. p. 374, viii. p. 91; *Scully, S. F.* viii. p. 265. **Collyrio tephronotus**, Hume, *Nests and Eggs*, p. 171.

Description.—*Male and female.* Head, nape, whole back and scapulars ashy, the latter washed with rufous; rump and upper tail-coverts reddish brown; a narrow band on the forehead (sometimes almost absent) and a broad streak passing through the eye and ear-coverts black; lower plumage whitish, washed with pale rufous on the breast and abdomen and with brighter rufous on the flanks and under tail-coverts; central tail-feathers black, the next pair black tipped with pale rufous, the others paler brown tipped and edged with pale rufous; wing-coverts black; quills dark brown, edged with pale rufous and the primaries with a white spot at their bases.

Young and immature birds have the cheeks, sides of neck, breast and flanks barred with brown.

Bill black; base of lower mandible yellowish horny; irides dark brown; feet and claws black. (*Scully.*)

Length 9·5 inches, tail 5, wing 4·2, tarsus 1·1, bill from gape 1.

An allied species is *L. erythronotus* from India. In this bird both the back and rump are rufous. *L. schach* from China is like *L. erythronotus* in coloration, but the frontal black band is very wide indeed and the back is intensely rufous.

The Grey-backed Shrike is said by Mr. Blyth to have occurred in Arrakan, and Mr. Davison procured one specimen at Kyouknyat in the north of Tenasserim.

It extends into China and is found in the Indo-Burmese countries and over a great portion of Northern India. It breeds in the Himalayas at considerable heights as far west as the Sutlej valley, and in the winter it descends to the lower ranges of the Himalayas and to the plains.

238. LANIUS COLLURIoidES.

THE BURMESE SHRIKE.

Lanius collurioides, Less. *Voy. Bélang.* p. 250; *Wald. Ibis*, 1867, p. 220; *Bl. B. Burm.* p. 122; *Armstrong, S. F.* iv. p. 316; *Anders. Yunnan Exped.* p. 646; *Hume & Dav. S. F.* vi. p. 203; *Hume, S. F.* viii. p. 91; *Bingham, S. F.* ix. p. 171; *Oates, S. F.* x. p. 199. *Lanius hypoleucos*, *Bl. J. A. S. B.* xvii. p. 249; *Hume, S. F.* iii. p. 90.

Description.—*Male and female.* Forehead, lores, ear-coverts and round the eyes blackish; crown, nape and sides of the neck dark ashy; back, rump, scapulars and upper tail-coverts chestnut; wing-coverts brown, edged with ferruginous; tertiaries the same; primaries and secondaries dark brown, narrowly edged on the outer webs with whitish; the inner webs of all white at the base; the fifth to tenth primaries also with a white spot on the outer web near the base; the outermost pair of tail-feathers white with black shafts; the next white with a large black patch on the inner web; the others black tipped with white; under wing-coverts mixed black and white.

Iris pale reddish brown; eyelids plumbeous; bill black, the gape and the greater portion of the lower mandible flesh-colour; mouth flesh-colour; legs plumbeous; claws horn-colour.

Length 8 inches, tail 4, wing 3·5, tarsus 1, bill from gape ·8. The female is of about the same size.

L. vittatus from India is somewhat allied to this species; it has the forehead black, the head grey and the back maroon.

The Burmese Shrike is generally distributed over the Pegu Division. I found it very abundant in the Thayetmyo and Prome districts. I observed it, but not so commonly, in Southern Pegu, about the towns of Pegu and Kyeikpadein. Both Dr. Armstrong and Capt. Wardlaw Ramsay procured

it at Rangoon, and the latter also at Tonghoo and in Karennee. Mr. Davison found it rarely in Tenasserim as far south as Amherst, and Capt. Bingham got it in the Thoungyeen valley.

This Shrike does not apparently breed in British Burmah. It is absent from the Province from the middle of March to the end of June, and it probably breeds in some of the mountainous portions of South-western China.

It has been observed by Dr. Anderson in the country east of Bhamo and by Col. Godwin-Austen in Munipoor.

This handsome little Shrike is found in most parts of the country in gardens, secondary jungle and the outskirts of cultivation. It takes up its post on a naked branch, a stump, a rail or even on a telegraph-wire, and darts down to the ground to capture grasshoppers and other large insects, generally returning to the same perch several times in succession. It has the usual loud and harsh notes of the Shrikes.

239. LANIUS LUCIONENSIS.

THE PHILIPPINE SHRIKE.

Lanius lucionensis, *Linn. Syst. Nat.* i. p. 135; *Wald. Ibis*, 1867, p. 215; *Hume, S. F.* ii. p. 199; *Wald. Trans. Z. Soc.* ix. p. 171, pl. xxix. f. 1; *David et Oust. Ois. Chine*, p. 99; *Legge, Birds Ceylon*, p. 378; *Hume, S. F.* viii. p. 91.

Description.—*Male and female.* The forehead and a distinct supercilium greyish white; the feathers immediately at the base of the upper mandible, the lores and a broad streak passing through the eyes and covering the ear-coverts black; the whole upper plumage and scapulars liver-brown, tinged with rufous on the rump and upper tail-coverts; tail brown, tinged with rufous and tipped paler; chin, throat and sides of neck white; remainder of lower plumage pale buff; lesser coverts white; the remaining coverts and all the wing dark brown, edged with rufescent, more broadly so on the tertiaries than elsewhere.

The *young* have the upper plumage brown closely barred with black, and the lower plumage yellowish or buffy white; all the feathers except those on the chin, throat, centre of breast and abdomen barred with dark brown.

Legs and feet dull leaden blue; the upper mandible horny brown, edged whitish near the gape; the terminal third of the lower mandible horny brown; the basal two thirds bluish or fleshy white; irides brown. (*Davison.*)

Length 8 inches, tail 3·8, wing 3·5, tarsus 1, bill from gape ·9.

The Philippine Shrike was obtained by Mr. Davison in the extreme south of Tenasserim, where he says it is only a rare straggler.

In winter this Shrike is found in the Malay peninsula, the Andaman Islands and the Philippine Islands. It passes through China on migration, and summers in Northern China. It is said to have occurred in Ceylon and in Southern India.

In the Andaman Islands this species appears to be a permanent resident, specimens having been obtained there by Mr. Hume from December to October. Mr. Davison remarks that this Shrike is a very silent bird.

240. LANIUS CRISTATUS.

THE BROWN SHRIKE.

Lanius cristatus, Linn. *Syst. Nat.* i. p. 134; Jerd. *B. Ind.* i. p. 406; Wald. *Ibis*, 1867, p. 212; Hume, *Nests and Eggs*, p. 175; id. & Henders. *Lah. to Yark.* p. 182; Bl. *B. Burm.* p. 121; Wald. *Trans. Z. Soc.* ix. p. 172; Hume, *S. F.* iii. p. 91; Armstrong, *S. F.* iv. p. 316; David et Oust. *Ois. Chine*, p. 99; Anders. *Yunnan Exped.* p. 645; Cripps, *S. F.* vii. p. 269; Legge, *Birds Ceylon*, p. 377; Hume, *S. F.* viii. p. 91; Bingham, *S. F.* ix. p. 172. *Lanius phoenicurus*, Pall. *Reis. Russ. Reichs*, iii. p. 693; Wald. *Ibis*, 1867, p. 216, pl. v. f. 2.

Description.—*Male and female.* Like *L. lucionensis*, except that the upper plumage is reddish brown, darker on the head, rump and upper tail-coverts.

The young are similar at all stages to *L. lucionensis*, but are characterized by the reddish-brown upper plumage.

These two species may always be separated at all ages by the presence of reddish brown in *L. cristatus* and its absence in *L. lucionensis* on the upper plumage. In *L. cristatus* the forehead is also more narrowly greyish white and the supercilium is purer white.

The upper mandible from the nostrils forward and the tip of the lower mandible dark horn; remainder of the bill pale bluish; mouth flesh-colour; iris dark brown; eyelids plumbeous; legs bluish brown; claws black.

Length 7·5 inches, tail 3·5, wing 3·4, tarsus ·1, bill from gape ·9. The female is of the same size.

L. superciliosus from Japan, China and the Malay archipelago is similar to *L. cristatus*, but the rufous of the upper plumage is intense, almost approaching chestnut, especially on the head. Specimens from Yokohama in Mr. Seebohm's collection have the tails 4 inches long, but another bird from Sumatra has the tail only 3·5 inches in length.

The Brown Shrike is a common winter visitor to all parts of British Burmah, arriving in September and departing in April.

In winter it is found in Cochin China, the Malay peninsula and Southern China. It extends over the Indo-Burmese countries and nearly the whole

peninsula of India with Ceylon and the Andaman Islands. In summer it appears to be spread over Thibet, Mongolia and portions of Siberia.

This Shrike is said to breed occasionally in the plains of India, but the evidence on this point is not very satisfactory. It is apparently as much a winter migrant in India as it is in Burmah.

The Brown Shrike is a well-known bird, conspicuous for the open manner in which it carries on its pursuits. It may be seen daily in every compound, and it is remarkable for the pertinacity with which it clings for months to one spot. I believe that many of these birds return to the same garden year after year, and even to the same perch.

The cry of this Shrike is very loud and shrill, but it is said at times, in common with other Shrikes, to have a pleasant song. This is probably only at the breeding-season, and is not heard in Burmah. I have never seen it catch any thing larger than a grasshopper; but it may at times, like its brethren in other countries, occasionally kill and impale a young and sickly bird.

241. LANIUS MAGNIROSTRIS.

THE THICK-BILLED SHRIKE.

Lanius magnirostris, *Less. Voy. Bélang.* p. 251; *Wald. Ibis*, 1867, p. 220, pl. vi.; *id. Ibis*, 1871, p. 173; *David et Oust. Ois. Chine*, p. 97; *Hume & Dav. S. F.* vi. p. 203; *Hume, S. F.* viii. p. 91. **Lanius waldeni**, *Swinhoe, P. Z. S.* 1870, p. 131, pl. ii.

Description.—*Male and female.* Whole head above, the nape, sides of neck and a portion of the upper back grey; the forehead, lores and a broad band covering the eye and ear-coverts black; back, rump and upper tail-coverts, the scapulars and the lesser and median wing-coverts chestnut, barred across with black; greater wing-coverts and tertiaries dull chestnut, dusky interiorly and tipped pale; primaries and secondaries brown, edged narrowly with rufous; tail reddish brown, all but the central pair of feathers tipped with white; the whole tail obsoletely barred across, and with a darker bar in front of the white tips; the entire lower plumage creamy white, a small portion of the flanks near the thighs barred with brown.

The *young* have the whole upper plumage, including the head, reddish brown closely barred with black; and the whole lower plumage, except the throat and the centre of the breast and abdomen, is barred with dark brown; there is no black stripe on the side of the head, the whole of that part being fulvous speckled and mottled with brown; the quills and tail are the same as in the adult.

Legs and feet pale plumbeous blue, lavender-blue, sometimes almost

smalt-blue; irides brown; edges of eyelids black; more or less of both mandible pale plumbeous or pale dull blue. (*Davison*.)

Length 6·8 inches, tail 3, wing 3·2, tarsus ·85, bill from gape ·9. The female is of the same size.

The Thick-billed Shrike was procured by Mr. Davison at the extreme southern point of Tenasserim, where it apparently occurs only as a straggler.

It extends down the Malay peninsula, and is found in the island of Sumatra, but in both countries probably only in the winter season. Mr. Swinhoe states that in the summer it comes to Central China where it breeds. It must necessarily in this case occur in Siam and Cochin China, but Dr. Tiraud does not seem to have noticed it in the latter country.

Mr. Davison says of this Shrike:—"Though very rare in Tenasserim, I found this plentiful in the Malay peninsula. I observed nothing special in its habits. It kept in open country and about cultivated lands in the neighbourhood of villages, and comported itself precisely after the manner of *L. erythronotus*."

Subfamily PRIONOPINÆ.

Genus TEPHRODORNIS, *Swains*.

242. TEPHRODORNIS PONDICERIANA.

THE WHITE-TAILED WOOD-SHRIKE.

Muscicapa pondiceriana, *Gm. S. N.* i. p. 939. *Tephrodornis affinis*, *Bl. J. A. S. B.* xvi. p. 473; *Hume, S. F.* i. p. 434; *Sharpe, Cat. Birds B. Mus.* iii. p. 276. *Tephrodornis pondiceriana*, *Jerd. B. Ind.* i. p. 410; *Hume, Nests and Eggs*, p. 176; *Hume, S. F.* iii. p. 92; *Bl. B. Burm.* p. 122; *Hume, S. F.* iv. p. 458; *Sharpe, Cat. Birds B. Mus.* iii. p. 275; *Anders. Yunnan Exped.* p. 646; *Legge, Birds Ceylon*, p. 372; *Hume, S. F.* viii. p. 91; *Oates, S. F.* viii. p. 166.

Description.—*Male and female*. The whole upper plumage with the lesser wing-coverts ashy brown, the rump-feathers tipped with white; upper tail-coverts dark brown; a broad supercilium white, tinged with rufous; lores, cheeks and feathers under the eye dark brown; lower plumage ashy, whiter on the throat and abdomen and darker on the flanks; under tail-coverts white; wings, with the median and greater coverts, ashy brown, each feather very narrowly edged paler; the two outer pairs of tail-feathers white, the bases brown and with a brown patch near the tip; the remaining feathers entirely dark brown, the centre feathers tinged with ashy.

The *young* have the head and back spotted with white; the larger wing-

coverts and tertiaries are tipped with white, and the supercilium is only slightly indicated; the white on the tail extends to the third pair of feathers.

Bill dark horn-colour; inside of mouth flesh-colour; eyelids plumbeous; iris yellowish brown; legs and feet dark plumbeous brown; claws dark horn-colour.

Length 6·5 inches, tail 2·7, wing 3·3, tarsus ·75, bill from gape ·88. The female is of about the same size.

Birds from different parts of the continent of India and from Burmah vary much in shade of colouring and in the extent of the supercilium. Specimens from Burmah have usually the supercilium very well developed and the colour of the plumage deeper.

I have been able to examine very few examples of the Ceylonese form *T. affinis*, and I am not consequently in a position to judge whether it is a really good separable form. Messrs. Holdsworth and Hume and Capt. Legge unite the insular with the continental form, while Mr. Sharpe keeps them separate. I do not think any clear line of distinction can be drawn between the two supposed species. In *T. affinis* the back is said to be more slaty than in the majority of *T. pondiceriana* and the eye-streak but faintly indicated. These characters vary so much even in birds from one locality that not much weight can be attached to them.

This Wood-Shrike is spread over the whole of Pegu, where it is a constant resident. Capt. Wardlaw Ramsay got it in Tonghoo; but Mr. Davison did not meet with it in any portion of Tenasserim, and probably this bird does not cross to the east of the Sittang river except as a straggler. It is pretty certain to be found in Arrakan, but it does not appear ever to have been recorded from that Division.

Out of British Burmah it has a very extensive range. Dr. Anderson procured it near Bhamo in Upper Burmah. It probably occurs over the whole of the Indo-Burmese countries and the Eastern-Bengal tracts. Dr. Jerdon states that it is found in Assam. From this province it extends along the Himalayas as far as the North-west Provinces and over the whole of the peninsula of India and Ceylon. Its western limit appears to be Kutch, Scinde and the Punjaub.

The White-tailed Wood-Shrike is tolerably numerous in the well-wooded parts of Pegu, but does not affect thick forests nor does it ascend the higher hills. It is as often seen alone as in small flocks, flying about from tree to tree in a deliberate slow manner, searching the leaves for insects. Its usual note is sweet but low, and at the approach of the hot weather in March and April the male has a simple but melodious little song.

I found the nest of this Wood-Shrike near Pegu in March. It was placed on a fork at the extremity of one of the lower branches of a large cotton-tree and was made of vegetable fibres and lined with fine black roots.

The exterior was thickly covered with cobwebs and bits of bark so as to render the nest the same in appearance as the branch on which it rested. The nest was cup-shaped and contained three eggs, white marked with purple and brown.

243. TEPHRODORNIS PELVICA.

HODGSON'S WOOD-SHRIKE.

Tentheca pelvica, *Hodgs. Ind. Rev.* i. p. 447. *Tephrodornis pelvica*, *Jerd. B. Ind.* i. p. 409; *Hume, S. F.* iii. p. 92; *Bl. B. Burm.* p. 122; *Sharpe, Cat. Birds B. Mus.* iii. p. 276; *Hume & Dav. S. F.* vi. p. 205; *Hume, S. F.* viii. p. 91.

Description.—*Male.* Forehead, crown and nape ashy grey; back, scapulars and lesser wing-coverts ashy brown; rump ashy brown, tipped with white and obscurely barred with brown; the shorter upper tail-coverts white, the longer ones ashy brown; tail ashy brown with a rufous tinge, all the feathers narrowly tipped with whitish; the shafts reddish brown; greater wing-coverts ashy brown, edged brighter; quills ashy brown, with rufous shafts, all edged and tipped brighter; nasal plumes, lores, ear-coverts and feathers under the eye black; under this black a broad white streak; lower plumage cinereous, tinged with buff on the breast and becoming albescent on the abdomen; vent and under tail-coverts pure white; the bill black; eyelids dark plumbeous; iris yellowish brown; legs plumbeous brown; claws dark horn-colour.

The *female* has the forehead, crown and nape of the same colour as the back; the black on the sides of the head is absent, the ear-coverts being merely a little darker than the crown of the head; the bill is brown; the gape and the base of both mandibles are flesh-coloured; otherwise it does not differ from the male.

The *young* resemble the adult female, but have the margins of all the feathers of the upper plumage whitish.

Length 8·5 inches, tail 3·5, wing 4·5, tarsus ·85, bill from gape 1·2. The female is a trifle larger than the male.

Mr. Hume (*l.c.*) has made some interesting remarks on this species. He states that Tenasserim birds appear in some respects to grade into *T. gularis*, which is the common species of the Malay peninsula. My men procured numerous specimens of *T. pelvica* at Malewoon, the extreme southern point of Tenasserim, and these birds do not bear out Mr. Hume's statement; they are in all respects the same as birds shot in Pegu and show no approach to *T. gularis*. In this latter species the head and back and the general aspect of the wings are bluish ashy, and the tail is nearly black.

Hodgson's Wood-Shrike is found very commonly over the whole of Pegu, where it appears to be a constant resident. Mr. Davison found it very generally distributed over Tenasserim, and my men procured numerous specimens at Malewoon. It probably does not go far down the Malay peninsula; but its limit in a southerly direction is not known. Mr. Blyth states that it occurs in Arrakan, where it will probably be found to be generally diffused. Messrs. David and Oustalet record it from Laos and Cambodia, and Mr. Swinhoe found it in Hainan. It is probably scattered over the whole of South China and the Indo-Burmese countries; it has been procured in Tipperah and Cachar, and it extends along the Himalayas from Bhootan to Nipal.

This Wood-Shrike frequents thick evergreen forests in preference to other localities; but it is also found in most parts of the country which are well wooded. On the Pegu hills it was remarkably abundant, flying about the trees in small troops and uttering all the time they were feeding a rather loud and melodious call. It was very confiding and not easily frightened. Its food consists of insects of various kinds, and they diligently search the leaves for them.

Genus MUSCITREA, *Blyth*.

244. MUSCITREA GRISOLA.

THE GREY WOOD-SHRIKE.

Tephrodornis grisola, *Bl. J. A. S. B.* xii. p. 180* ; *Jerd. B. Ind.* i. p. 411 ; *Bl. Ibis*, 1865, p. 43 ; *Wald. Tr. Z. S.* ix. p. 179. **Hyloterpe grisola**, *Wald. Ibis*, 1874, p. 141 ; *Salvad. Ucc. Born.* p. 157. **Muscitrea cinerea**, *Bl. J. A. S. B.* xvi. p. 121 ; *Bl. B. Burm.* p. 111 ; *Hume, S. F.* v. p. 101. **Hyloterpe philomela** (*Müll.*), *Cab. Arch. f. Nat.* 1847, p. 322 ; *Bl. & Wald. B. Burm.* p. 122. **Pachycephala grisola**, *Sclat. P. Z. S.* 1863, p. 217. **Hylocharis philomela**, *Hume, S. F.* ii. p. 201. **Hylocharis occipitalis**, *Hume, S. F.* ii. p. 201. **Hyloterpe grisola**, *Hume, S. F.* v. p. 102. **Muscitrea grisola**, *Hume & Dav. S. F.* vi. p. 206 ; *Hume, S. F.* viii. p. 91.

Description.—*Male and female.* Lores and the head from the forehead to the nape dull earthy brown; back, rump, scapulars, upper tail-coverts and upper wing-coverts rufous-brown; tail and wings hair-brown, the quills of the latter margined exteriorly with the same colour as the back but brighter; chin, throat, breast and flanks pale brown; abdomen, vent, under tail-coverts and under wing-coverts pure white.

The tint of the upper plumage varies much according to the freshness of the feathers.

Bill dark brownish black ; mouth flesh-colour ; iris reddish brown ; eyelids plumbeous ; legs plumbeous ; claws pale horn-colour.

Length 6·6 inches, tail 2·6, wing 3·3, tarsus ·84, bill from gape ·8. These are the dimensions of a female ; the male, from Mr. Davison's measurements, appears to be rather larger.

The Grey Wood-Shrike has a curious history. Soon after it was described by Blyth as *Tephrodornis grisola* the specimen was lost, and subsequently getting hold of another bird of the same species, he redescribed it as *Muscitrea cinerea*. Dr. Sclater was the first, I believe, to suggest the identity of Blyth's bird with *Hyloterpe philomela*, an obscure species of very wide distribution. Mr. Hume also, in an exhaustive article, has shown that Blyth's two species were in reality one, and the matter may now be considered finally settled. It is no easy matter to settle the position of this species. I should feel inclined to place it among the Flycatchers ; but I am unwilling to disturb the extent of the family as defined by Mr. Sharpe, and consequently I place it here near *Tephrodornis*.

The Grey Wood-Shrike was sent to Mr. Blyth from the island of Ramree on the Arrakan coast. I myself have only shot it once in Pegu, in the rains, near Pegu town. Mr. Davison says that it is very rare in Tenasserim, but less rare, perhaps, in the Mergui archipelago than elsewhere.

Out of Burmah it has been procured, according to Jerdon, very rarely near Calcutta. Mr. Hume procured it in the Andamans. It extends down the Malay peninsula and has been recorded from Sumatra, Borneo, Java and Lombock.

Very little is known of the habits of this species. The only bird I observed was perched on a stalk of elephant-grass on the banks of the Pegu Canal. Mr. Davison remarks that it apparently prefers the forests, but one specimen he obtained was found in very low mangrove-bushes on the edge of a creek.

Genus HEMIPUS, *Hodgs.*

245. HEMIPUS PICATUS.

SYKES'S PIED SHRIKE.

Muscicapa picata, *Sykes*, *P. Z. S.* 1832, p. 85. **Hemipus picatus**, *Jerd. B. Ind.* i. p. 412 ; *Hume*, *Nests and Eggs*, p. 178 ; *id. S. F.* i. p. 435, iii. p. 93 ; *Wald.* in *Bl. B. Burm.* p. 122 ; *Sharpe*, *Cat. Birds B. Mus.* iii. p. 307 ; *Hume & Dav.* *S. F.* vi. p. 207 ; *Hume*, *S. F.* viii. p. 91.

Description.—*Male.* The upper plumage with the lores and ear-coverts glossy black ; the rump-feathers broadly tipped with white ; chin, vent and

under tail-coverts pure white ; the remainder of the lower plumage pale vinaceous ; cheeks and sides of the neck white, produced so as to form an indistinct white collar round the neck ; lesser wing-coverts black ; median coverts black broadly tipped with white ; the outer greater coverts black ; the inner ones white on the outer and black on the inner webs ; primary-coverts and all the quills black ; the later secondaries broadly edged with white ; tail black, all but the central feathers tipped with white, the white on the outermost feathers extending over the whole outer web.

The *female* is similar to the male, but has the black replaced by sooty brown.

Bill black ; inside of the mouth bluish black ; iris hazel ; eyelids plumbeous ; legs plumbeous brown ; claws dark brown.

Length 5·4 inches, tail 2·4, wing 2·5, tarsus ·45, bill from gape ·7. The female is of the same size.

On examining a large series of these birds in the British Museum, I arrive at the conclusion that there are two distinct but allied species, *H. picatus* and *H. capitalis*. Discarding females, I find that all birds from Ceylon, Travancore, the Deccan, Sikhim and British Burmah have black backs. On the other hand, all birds from Nipal have the heads black and the backs brown. A bird from Bhamo collected by Dr. Anderson has a black head and a brown back, agreeing with M'Clelland's type from Assam.

Sykes's Pied Shrike is found over the whole of Pegu as a constant resident, but is by no means a common bird. Capt. Wardlaw Ramsay procured it at Tonghoo, in Karennee at 1500 feet, and in the Tsan-Koo hills. Mr. Davison found it generally diffused throughout Tenasserim, and Capt. Bingham states that it occurs in the Thoungyeen valley. It probably occurs in Arrakan, but I cannot discover that it has ever been noticed in that Division.

Out of Burmah it is found in the Himalayas and over the whole of India ; but in the Eastern Himalayas it seems to get mixed with the allied species *H. capitalis*, and both occur together in Nipal and Assam. Dr. Anderson's specimen, shot near Bhamo in Upper Burmah, is clearly *H. capitalis*.

Sykes's Pied Shrike is generally found in pairs in tolerably thick forest. It takes its post on a branch of a tree and darts on passing insects, catching them on the wing like a Flycatcher. Mr. Davison states that this bird also searches the leaves like a Wood-Shrike.

A nest found by Mr. Davison at Ootacamund in Madras was a small shallow cup made of grass and roots, and covered with cobwebs and lichens. It was placed in a branch of a tall tree and contained three eggs, which were pale greenish marked with umber-brown.

246. HEMIPUS OBSCURUS.

HORSFIELD'S PIED SHRIKE.

Muscicapa obscura, *Horsf. Tr. Linn. Soc.* xiii. p. 146. **Muscicapa hirundinacea**, *Temm. Pl. Col.* 119. **Myiolestes obscurus**, *Salvad. Ucc. Born.* p. 156. **Hemipus obscurus**, *Bl. B. Burm.* p. 122; *Sharpe, Ibis*, 1877, p. 20; *id. Cat. Birds B. Mus.* iii. p. 305; *Hume & Dav. S. F.* vi. p. 209; *Hume, S. F.* viii. p. 90.

Description.—*Male.* The wings, tail and the whole upper plumage black, except the shorter upper tail-coverts and the tips of the rump-feathers, which are white; the whole lower plumage and the cheeks white, the breast tinged with grey.

The *female* is similar to the male, but the black is replaced everywhere by brown.

Legs and feet dark purplish brown to black; bill black in the male, paler, especially on the lower mandible, in the female; irides dark brown. (*Davison.*)

Length 5·7 inches, tail 2·2, wing 2·6, tarsus ·45, bill from gape ·8. The female is of the same size.

I insert this species on the authority of Mr. Blyth, who states that it has been found at Mergui in Tenasserim. Notwithstanding that Mr. Davison did not meet with it in that Division, it is extremely likely to creep up the Malay peninsula into Burmah, and I can see no reason for doubting Mr. Blyth's statement.

Horsfield's Pied Shrike has been recorded from several localities in the Malay peninsula, and it occurs in Sumatra, Borneo and Java.

The habits of this species are probably the same as those of the preceding bird.

Family MUSCICAPIDÆ.

Genus TERPSIPHONE, *Gloger*.

247. TERPSIPHONE AFFINIS.

THE BURMESE PARADISE FLYCATCHER.

Tchitreia affinis, *A. Hay, Bl. J. A. S. B.* xv. p. 292; *Jerd. B. Ind.* i. p. 448; *Hume, S. F.* ii. p. 216; *Bl. & Wald. B. Burm.* p. 131. **Tchitreia paradisi** (*Linn.*), *Hume, S. F.* iii. p. 102. **Muscipeta affinis**, *Hume & Dav. S. F.* vi. p. 223; *Hume, S. F.* viii. p. 92; *Scully, S. F.* viii. p. 274. **Terpsiphone affinis**, *Salvad. Ucc. Born.* p. 137; *Anders. Yunnan Exped.* p. 654; *Sharpe, Cat. Birds B. Mus.* iv. p. 349.

Description.—*Male.* The whole head and neck black glossed with blue; lower plumage, axillaries and under wing-coverts pure white; back, scapulars, rump and upper wing-coverts white, with indistinct blackish shaft-stripes; lesser and median wing-coverts white, the shafts conspicuously black; greater coverts and the tertiaries white, the shafts and a portion of the webs on either side black; primaries black edged with white; secondaries black, very broadly edged with white on both webs, the white increasing in extent as the feathers approach the body; tail white, the shafts black, except on the central pair, where the shafts turn white towards the tip; all the tail-feathers finely margined with black.

The *adult male in the non-breeding season* loses the long central tail-feathers.

The *female* has the forehead and crown glossy black; the sides of the head, the chin, throat, breast and a collar round the neck ashy; the abdomen white tinged with buff; the flanks and under tail-coverts buff; the whole upper plumage, lesser wing-coverts and tail chestnut; the median and greater coverts and all the quills brown edged with chestnut; the long tail-feathers are wanting at all seasons.

Young birds of both sexes are similar to the female. The young male in its second year loses the buff tinge on the abdomen, the ashy parts become darker, and the central tail-feathers are replaced by long ones. In this plumage the male probably breeds for the first time; subsequently the chin and throat as well as the sides of the head turn black, and the white plumage of the adult is assumed either by a moult or, as is very probable, by a change in the colour of the feathers only.

Iris hazel-brown; eyelids plumbeous, the edges tumid and rich blue;

inside of mouth yellow ; bill blue, the tip and anterior half of the margins black ; legs plumbeous blue ; claws dark horn-colour.

Length of breeding male as much as 18 inches, of females and non-breeding males about 8 to 9, tail 4, wing 3·6, tarsus ·68, bill from gape 1. The female is considerably smaller. The tail in adult males is frequently 14 inches in length.

This species differs from the allied *T. paradisi* in having a shorter crest, which terminates abruptly at the nape instead of being produced in a pointed form over the upper back, and also in having the black on the shafts of the central tail-feathers much greater in extent, the black in *T. affinis* reaching to within a quarter or a third of the length of the tail from its tip, whereas in *T. paradisi* fully the terminal half of the shaft is white.

The Burmese Paradise Flycatcher is generally distributed over the province, but I think is found as a permanent resident only in the damp evergreen forests. In the plains of Pegu it occurs in large numbers in September and October, in which months it appears to be migrating locally.

To the south it extends down the Malay peninsula to the islands of Sumatra, Java, Borneo and Flores, and Dr. Tiraud states that it is found in Cochin China. To the north it occurs in the Indo-Burmese countries, ranging into the Himalayas as far as Nipal.

This handsome Flycatcher is found in well-wooded parts of the country, and is more abundant in heavy forest and bamboo-jungle than elsewhere. It is generally seen in pairs. At the period of local migration considerable numbers associate together for a short time. It catches insects by pouncing upon them in the air, never, I believe, descending to the ground, and it is constantly on the move.

The nest has not yet been found. Its ally, *T. paradisi*, makes a delicate cup-shaped nest of moss, fibres and grass, bound together by cobwebs, on a high branch, and lays three or four eggs, which are white marked with dull red.

Genus PHILENTOMA, *Eyton*.

248. PHILENTOMA VELATUM.

THE MAROON-BREASTED FLYCATCHER.

Drymophila velata, *Temm. Pl. Col.* 334. **Philentoma velatum**, *Salvad. Ucc. Born.* p. 139; *Wald. in Bl. B. Burm.* p. 131; *Hume & Dav. S. F.* vi. pp. 224, 509; *Hume, S. F.* viii. p. 92; *Sharpe, Cat. Birds B. Mus.* iv. p. 365.

Description.—*Male*. General colour indigo-blue; forehead, lores, chin, cheeks and a narrow supercilium black; throat and breast rich maroon; quills black, the outer webs broadly margined with indigo-blue and the tertiaries wholly of this latter colour, but with the shafts black; central tail-feathers indigo-blue, the others black on the inner web and blue on the outer.

The *female* is wholly dull indigo-blue, except on the wings and tail, which are as in the male.

The *young* are similar to the female.

Legs and feet bluish or purplish black; bill black; irides lake to crimson. (*Davison*.)

Length 8 inches, tail 3·5, wing 3·7, tarsus ·7, bill from gape ·9. The female is rather smaller.

Many young birds were procured by my men in Tenasserim, and they were like the female. Mr. Hume, however, thus describes a young male:—"The entire head and neck all round, chin, throat, breast and, in fact, entire lower parts are a dull chestnut, with only here and there on the lower parts patches of new dull cyaneous feathers appearing.

"The whole of the median and the secondary and tertiary greater coverts are tipped, the former very broadly, the latter more narrowly, with chestnut, and there are patches of this same colour on the rump, upper back and scapulars."

The Maroon-breasted Flycatcher occurs in Tenasserim, and Mr. Davison met with it at numerous places from Meetan, at the foot of Mooleyit, to Malewoon at the extreme south. It is a constant resident.

It extends down the Malay peninsula to Sumatra, Java, and Borneo.

Mr. Davison says of this bird:—"It keeps entirely to the evergreen forests, never that I know of straying even to their outskirts. I have always met with it in pairs. It has a harsh grating metallic-sounding note."

An allied species from the Malay peninsula has been named *P. intermedium* by Mr. Hume (*S. F.* ix. p. 113).

249. PHILENTOMA PYRRHOPTERUM.

THE CHESTNUT-WINGED FLYCATCHER.

Muscicapa pyrrhoptera, Temm. *Pl. Col.* 596. *Philentoma castaneum*, Eyton, *Ann. Nat. Hist.* ser. 1, xvi. p. 229. *Philentoma pyrrhopterum*, Salvad. *Ucc. Born.* p. 138; *Hume & Dav. S. F.* vi. p. 223; *Hume, S. F.* viii. p. 92; *Sharpe, Cat. Birds B. Mus.* iv. p. 366.

Description.—*Male.* The whole head and neck, the breast, back and lesser wing-coverts indigo-blue; lower back and rump rufescent grey; upper tail-coverts, the tail, a portion of the outer webs of the scapulars, the whole of the tertiaries and the greater portion of the outer webs of the secondaries bright chestnut; remainder of the quills dark brown, the outer webs of the primaries margined with reddish grey; primary-coverts blue centred with blackish; greater wing-coverts chestnut; lower plumage pale buff, becoming paler on the vent and under tail-coverts.

The *female* has the forehead, crown, nape and sides of the head greenish brown; the back, scapulars, lesser wing-coverts and rump rufous-grey; the lower plumage pale chestnut-buff; the wings and tail as in the male.

In the males the legs, feet and claws were pale purplish blue; bill black; irides crimson. In an adult female the legs, feet and claws were plumbeous olive; the upper mandible pale horny brown; the lower mandible fleshy white; iris dull red. In a younger female the legs and feet were pale horny red and the iris pale red, speckled with white. (*Davison.*)

Length 7 inches, tail 2·8, wing 3·2, tarsus ·65, bill from gape ·9. The female is rather smaller.

The Chestnut-winged Flycatcher occurs in the extreme south of Tenasserim, where it was observed by Mr. Davison at Malewoon, Bankasoon and Laynah. Subsequently it was procured at the foot of Nwalabo mountain. It is probably a constant resident.

It extends down the Malay peninsula to Sumatra and Borneo, and Dr. Tiraud records it from Cochin China.

Mr. Davison remarks that the habits of this species are similar to those of *P. velatum*, but its note more resembles that of *Hypothymis azurea*. It is a true Flycatcher, not at all wary or shy, catching its food entirely on the wing and never descending to the ground.

Genus HYPOTHYMIS, *Boie*.

250. HYPOTHYMIS AZUREA.

THE BLACK-NAPED BLUE FLYCATCHER.

Muscicapa azurea, *Bodd. Tabl. Pl. Enl.* p. 41. **Myiagra azurea**, *Jerd. B. Ind.* i. p. 450; *Hume, Nests and Eggs*, p. 198; *Hume, S. F.* ii. p. 217, iii. p. 103; *David et Oust. Ois. Chine*, p. 114. **Hypothymis azurea**, *Bl. B. Burm.* p. 131; *Oates, S. F.* v. p. 149; *Anders. Yunnan Exped.* p. 655; *Hume, S. F.* viii. p. 92; *Sharpe, Cat. Birds B. Mus.* iv. p. 274.

Description.—*Male*. A patch on the nape, the forehead immediately near the upper mandible, the angle of the chin and a crescentic band across the fore neck black; belly, vent and under tail-coverts white washed with bluish; the whole remaining plumage with the lesser wing-coverts azure-blue; greater wing-coverts black, broadly margined with blue; wings brown narrowly edged with blue; tail brown, suffused with blue on the central pair of feathers and the outer webs of the others; under wing-coverts and axillaries white.

Female. Head above azure-blue; sides of the head, chin and throat duller blue, the ear-coverts almost brown; breast greyish brown; abdomen, flanks and under tail-coverts white tinged with grey; wings, back, rump and upper tail-coverts brown; tail darker brown, the outer edges washed with blue, and all but the central feathers tipped with white.

The *young* are very similar to the female.

Iris dark brown; eyelids plumbeous, the edges blue; bill dark blue, the edges and tip black; mouth yellow; legs plumbeous; claws horn-colour.

Length 6·4 inches, tail 3, wing 2·8, tarsus ·7, bill from gape ·75. The female is of about the same size.

H. occipitalis, an allied species, which occurs in the Andamans and in the Malay peninsula, may probably be found in Tenasserim. It has those parts greyish purple which are white in *H. azurea*.

The Black-naped Blue Flycatcher is found abundantly over every portion of British Burmah, and is a constant resident.

It extends down the Malay peninsula, and occurs in Cochin China. It ranges into China, the Indo-Burmese countries, and is spread over the whole peninsula of India.

This Flycatcher is found in every description of jungle, in gardens, compounds and roadsides, and it is especially partial to bamboo-groves. It is an active bird, ever on the move, darting after insects. I have frequently found its nest in May. The structure is a delicate cup made of grass and coated with cobwebs, and it is generally placed in a fork of a tree or a bamboo not far from the ground. The eggs, three in number, are white marked with pale red and purple.

Genus RHIPIDURA, *Vig. & Horsf.*

251. RHIPIDURA ALBICOLLIS.

THE WHITE-THROATED FANTAIL.

Platyrhynchus albicollis, Vieill. *Nouv. Dict. d'Hist. Nat.* xxvii. p. 13. *Rhipidura fuscoventris*, Franklin, *P. Z. S.* 1831, p. 117. *Leucocerca fuscoventris*, Jerd. *B. Ind.* i. p. 451; Hume, *Nests and Eggs*, p. 200. *Leucocerca albicollis*, Wald. in *Bl. B. Burm.* p. 132; Hume, *S. F.* iii. p. 103; Cripps, *S. F.* vii. p. 276; Hume, *S. F.* viii. p. 92, ix. p. 174 (footnote). *Rhipidura albicollis*, Anders. *Yunnan Exped.* p. 656; Sharpe, *Cat. Birds B. Mus.* iv. p. 317.

Description.—*Male and female.* Crown, lores, sides of the head and angle of the chin deep black; a short supercilium white; throat white, extending laterally to the sides of the neck, the bases of the feathers black, causing the white to appear dull; with these exceptions, the whole plumage is dark sooty brown, paler on the wing; tail dark brown, all but the central pair of feathers broadly tipped with white. The female is stated by Mr. Sharpe to be greyer below and to have more white on the throat; but I do not think the difference between the sexes is definable or constant.

The *young* have the wing-coverts and feathers of the back tipped with rufous; the white supercilium and the white on the throat are barely indicated.

Bill, legs and feet black; mouth fleshy white; eyelids grey; iris deep brown; claws blackish horn-colour.

Length 7·5 inches, tail 4, wing 2·9, tarsus ·75, bill from gape ·7. The female is of about the same size.

The White-throated Fantail is spread sparingly over the whole of Pegu, and is a constant resident. Capt. Wardlaw Ramsay procured it in the Karennee hills at an elevation of 4000 feet. In Tenasserim, according to Mr. Davison, it is apparently confined to the forests of the outer Tenasserim range and adjacent spurs, at elevations of from 2000 to 6000 feet. Although not recorded from Arrakan, it is probably very common in that Division.

It extends through the Indo-Burmese countries into Northern India, and ranges as far as Central India. Dr. Tiraud mentions that it is common in Cochin China.

This Fantail is by no means a common bird anywhere in Burmah, but it is not confined to any particular sort of jungle. It may be met with both in thick forest and in the neighbourhood of villages and gardens. It has the peculiar habit of dancing about, with tail outspread, from branch to branch. I have not found its nest in Pegu, but in India it breeds from May to July. The nest, which is a tiny structure made of grass and coated with cobwebs, is placed in a fork of a tree not far from the ground. The eggs, three in number, are pale yellowish marked with grey.

252. RHIPIDURA JAVANICA.

THE JAVA FANTAIL.

Muscicapa javanica, *Sparrm. Mus. Carls.* iii. pl. 75. **Leucocerca javanica**, *Salvad. Ucc. Born.* p. 135; *Bl. B. Burm.* p. 132; *Hume & Dav. S. F.* vi. p. 226; *Hume, S. F.* viii. p. 92, ix. p. 175 (footnote). **Leucocerca infumata**, *Hume, S. F.* i. p. 455. **Rhipidura javanica**, *Sharpe, Cat. Birds B. Mus.* iv. p. 332.

Description.—*Male.* Forehead, crown and sides of the head sooty brown; the whole upper plumage and the wings brown washed with rufous; tail dark brown, the four outer pairs of feathers broadly tipped with white; the pair next these very narrowly tipped white; a short supercilium white; chin and a band across the upper breast blackish brown; flanks and thighs brown, the latter tipped with white; axillaries brown, broadly edged with white; under wing-coverts mixed black and white; the remaining lower plumage white.

The *female* has the lower plumage, from the breast downwards, tinged with buff.

The *young* have all the upper plumage, the quills and the wing-coverts margined with reddish brown; the pectoral band is pale and badly defined, and the lower plumage is washed with buff as in the adult female.

Irides brown; bill black, fleshy at the base of the lower mandible. (*Davison.*)

Length 7·5 inches, tail 3·6, wing 3, tarsus ·75, bill from gape ·7. The female is smaller.

The Java Fantail was recorded from Mergui by Mr. Blyth many years ago. Mr. Davison met with it in Tenasserim, where it appears to frequent the neighbourhood of the sea-coast from Tavoy southwards.

It extends into Siam and Cochin China, and down the Malay peninsula to Java, Sumatra and Borneo.

Mr. Davison noticed that this species in Tenasserim seemed to prefer the mangrove-swamps to almost any other locality, and he adds that he never met with it far from the coast.

253. RHIPIDURA ALBIFRONTATA.

THE WHITE-BROWED FANTAIL.

Rhipidura albofrontata, Franklin, *P. Z. S.* 1831, p. 116; Anders. *Yunnan Exped.* p. 655; Sharpe, *Cat. Birds B. Mus.* iv. p. 338. *Rhipidura aureola*, Less. *Traité*, p. 390. *Leucocerca albofrontata*, Jerd. *B. Ind.* i. p. 452; Hume, *Nests and Eggs*, p. 201; Bl. & Wald. *B. Burm.* p. 132. *Leucocerca aureola*, Hume, *S. F.* i. p. 436, iii. p. 104, viii. p. 92. *Leucocerca burmannica*, Hume, *S. F.* ix. p. 175 (footnote).

Description.—*Male.* Crown of head, lores, the ear-coverts and the feathers round the eye black; forehead and a very broad stripe over the eye to the nape white; upper plumage and wings ashy brown, the wing-coverts all tipped with white; tail brown, all but the centre pair of feathers tipped white; the pair next the centre ones tipped slightly only, the others progressively more so, the outermost feathers becoming almost entirely white; cheeks, chin and throat black, each feather broadly terminated with white except on the lower throat, where the white is reduced to narrow margins; sides of the breast black; remainder of lower plumage white.

The *female* hardly differs at all from the male. The upper plumage is slightly browner.

The *young* have the upper plumage margined with rufous.

Bill, legs and feet black; irides brown.

Length 7·2 inches, tail 3·7, wing 3·2, tarsus ·8, bill from gape ·7. The female is of about the same size.

The White-browed Fantail appears to be rather an uncommon bird in Burmah. I noticed it only at Thayetmyo and Tonghoo, and at other places not far from the northern frontier.

In the Thoungyeen valley in Tenasserim, Capt. Bingham procured some birds which for the present I associate with this species. They are remarkable in wanting the white tips to the upper wing-coverts, and in having less white on the tail. Mr. Hume also notices that in the specimen he examined and named *L. burmannica*, the chin, throat and upper breast were white. In a specimen which Capt. Bingham has kindly allowed me to examine, killed in the Thoungyeen valley, there are no differences by which it can be separated from the Indian bird, except the absence of white tips to the wing-coverts. Under these circumstances I consider it better to retain it at present under the same name as the Indian bird.

This species ranges through the Indo-Burmese countries, and is found over nearly the whole peninsula of India.

The habits of this bird are very similar to those of *R. albicollis*.

Genus CHELIDORHYNX, *Hodgs.*

254. CHELIDORHYNX HYPOXANTHA.

THE YELLOW-BELLIED FANTAIL.

Rhipidura hypoxantha, *Bl. J. A. S. B.* xii. p. 935. **Chelidorhynx hypoxantha**, *Jerd. B. Ind.* i. p. 455; *Hume, Nests and Eggs*, p. 204; *Wald. in Bl. B. Burm.* p. 132; *Hume, S. F.* viii. p. 93; *Scully, S. F.* viii. p. 275; *Sharpe, Cat. Birds B. Mus.* iv. p. 279.

Description.—*Male and female.* Forehead, a broad supercilium, commencing at the forehead, and the whole lower plumage bright yellow; lores, feathers round the eye, cheeks and ear-coverts dark brown tinged with green, the shafts of the latter parts whitish; tail brown, with conspicuous white shafts, and all the feathers but the central ones tipped with white; upper plumage and wing-coverts olive-brown; wings brown, very narrowly margined with olive-brown.

Bill black above; the lower mandible yellow; irides brown; gape orange; feet brownish. (*Scully.*)

Length 4·7 inches, tail 2·3, wing 2·1, tarsus ·6, bill from gape ·4. The female is a trifle smaller.

The Yellow-bellied Fantail was procured in the Tonghoo hills by Capt. Wardlaw Ramsay, and it has not been recorded from any other part of the province.

It extends through the Indo-Burmese countries into the Himalayas, where it has been found as far west as Nipal.

Dr. Jerdon says:—"It frequents the skirts of large woods and low trees by the roadsides, either in pairs or small flocks; is very active and lively, making short sallies after insects with a low pleasant twitter. I had the nest brought to me, but after the young had flown. It is an exceedingly neat, deep cup-shaped nest, made of moss, lichen, hairs and wool, well carded into a compact structure."

Genus CRYPTOLOPHA, *Swains.*

255. CRYPTOLOPHA CANTATOR.

THE LESSER BLACK-BROWED FLYCATCHER.

Motacilla cantator, *Tick. J. A. S. B.* ii. p. 576. **Culicipeta cantator**, *Jerd. B. Ind.* ii. p. 200. **Abornis cantator**, *Hume, Nests and Eggs*, p. 370; *id. S. F.* viii. p. 102. **Abornis chrysea**, *Wald. in Bl. B. Burm.* p. 106; *Hume, S. F.* v. p. 55; *Hume & Dav. S. F.* vi. p. 359; *Hume, S. F.* viii. p. 102. **Cryptolopha cantatrix**, *Sharpe, Cat. Birds B. Mus.* iv. p. 397.

Description.—*Male and female.* Two broad streaks running from the bill to the nape, enclosing between them an olive-yellow coronal streak, dark brown or blackish; lores, a distinct supercilium, cheeks, ear-coverts, sides of neck, chin, throat and breast bright yellow; abdomen and flanks silky white; vent and under tail-coverts bright yellow; upper plumage olive-yellow; wings dark brown, edged exteriorly with olive-yellow; wing-coverts olive-yellow, the greater series tipped with yellow, forming a wing-bar; tail brown, the feathers edged exteriorly with olive-yellow and interiorly near the tip, except on the two centre pairs, with very pale yellow.

Maxilla brown; mandible pale straw-colour (*Wardlaw Ramsay*): legs fleshy yellow; irides hazel (*Jerdon*).

Length 4 inches, tail 1·8, wing 2·2, tarsus ·65, bill from gape ·55.

The type of *C. chrysea* from Karennee differs from *C. cantator* from Sikhim in its smaller size, the wing being 2 inches and the tail 1·6. In other respects it is identical with it, and I have not thought it worthy of separation from that species. I have not been able to examine *C. fulviventris*, *Godw.-Aust.*, which is probably the same species as the present.

The Lesser Black-browed Flycatcher was obtained in the Karin hills, near Tonghoo, by Capt. Wardlaw Ramsay. It has not been observed elsewhere in British Burmah.

It occurs in the Himalayas from Assam to Nipal, in Bengal and in Central India.

Tickell states that it frequents trees in the thickest parts of the jungle, and has a loud and incessant note, '*pio-pio*.'

256. CRYPTOLOPHA TEPHROCEPHALA.

ANDERSON'S FLYCATCHER.

Culicipeta tephrocephalus, *Anders. P. Z. S.* 1871, p. 213; *Hume, S. F.* iii. p. 140; *Bl. & Wald. B. Burm.* p. 107; *Anders. Yunnan Exped.* p. 626, pl. 50. *Cryptolopha tephrocephalus*, *David et Oust. Ois. Chine*, p. 272; *Hume & Dav. S. F.* vi. p. 358; *Hume, S. F.* viii. p. 102. *Cryptolopha affinis* (*Hodgs.*), *Sharpe, Cat. Birds B. Mus.* iv. p. 398 (part.).

Description.—*Male and female.* Forehead, lores, cheeks, feathers above the eyes, the ear-coverts, sides of the neck, back, rump and upper tail-coverts yellowish green; a broad supercilium and a central coronal streak slate-coloured; the interspaces black; wing-coverts brown, broadly margined with yellowish green; feathers on the edges of the eyelids and the whole lower plumage with the under wing-coverts bright yellow; the four central pairs of tail-feathers brown on the inner webs and yellowish green on the outer; the two outer pairs slaty green, the inner webs with a patch of white occupying about two thirds of the web; primaries and secondaries brown, the outer webs broadly margined with yellowish green; tertiaries wholly yellowish green, duller than the back.

Upper mandible brown, lower one yellow; mouth yellow; legs yellow; claws yellowish horn-colour.

Length 4.25 inches, tail 1.8, wing 2.2, tarsus .75, bill from gape .65. The female is rather smaller.

This species is very similar to *C. burkii* from India, but it has a very much larger bill; *C. burkii*, moreover, altogether wants the grey streaks on the head.

I cannot agree with Mr. Sharpe that this species is identical with *Abrornis affinis*, *Hodgs. (Jerd. B. I. ii. p. 204)*. In *A. affinis* the bill is very small, quite as small as in *C. burkii*; the feathers on the eyelids are white and not yellow; the ear-coverts and sides of the neck are deep grey and the lower plumage is a duller, more oily, yellow.

Anderson's Flycatcher is very abundant throughout Pegu in the winter months. Capt. Wardlaw Ramsay obtained it in the Karin hills at 3500 feet elevation. Mr. Davison states that it is sparingly distributed in Tenasserim, probably in the cold season only, throughout the northern and central portions of the Division, and not apparently ascending the hills above 2500 feet elevation. Capt. Bingham found it in the Thoungyeen valley.

Mr. Blyth gives the allied species *C. burkii* from the Arrakan hills. He probably did not consider the two species really distinct. *C. tephrocephala* is most likely to occur in Arrakan, and not *C. burkii*. I have accordingly omitted the latter till there is further evidence of its occurrence in Burmah.

Anderson's Flycatcher was discovered in the hills to the east of Bhamo

and in Yunnan in Western China, and it is not known to occur elsewhere out of the limits of British Burmah.

This pretty Flycatcher arrives in Burmah in October and departs in March and April. Its breeding-haunts are not known, but the birds probably retire to some part of China to nest. This species has much of the habits of the Willow-Warblers, searching the leaves of large trees for insects and launching itself into the air in pursuit of flies.

257. CRYPTOLOPHA XANTHOSCHISTA.

HODGSON'S GREY-HEADED FLYCATCHER.

Phyllopneuste xanthoschistos, *Hodgs. in Gray's Zool. Misc.* p. 82. *Abornis xanthoschistos*, *Jerd. B. Ind.* ii. p. 202; *Hume, Nests and Eggs*, p. 370; *Hume and Henders. Lah. to Yark.* p. 220, pl. xx. f. 2; *Hume, S. F.* i. p. 494; *Bl. B. Burm.* p. 106; *Brooks, S. F.* iii. p. 245, viii. p. 483; *Hume, S. F.* viii. p. 102; *Scully, S. F.* viii. p. 309. *Abornis albosuperciliaris* (*Bl.*), *apud Jerd. B. Ind.* ii. p. 202; *Hume and Henders. Lah. to Yark.* pl. xx. f. 1; *Hume, S. F.* i. p. 493; *Brooks, S. F.* iii. p. 245; *Hume, S. F.* viii. p. 245. *Cryptolopha xanthoschista*, *Sharpe, Cat. Birds B. Mus.* iv. p. 398.

Description.—*Male and female.* Head, nape and back dark grey; wing-coverts, rump and tail-coverts olive-yellow, a paler and indistinct line of this colour running over the crown from the bill to the nape; lores and feathers behind the eye dark grey; a supercilium, cheeks and ear-coverts greyish white; the whole lower plumage bright yellow; wings and tail dark brown, edged with olive-yellow on the outer webs and with the inner webs of the two outer pairs of tail-feathers mostly white.

Upper mandible brownish black; lower mandible horny yellow; irides blackish brown; tarsus plumbeous; toes brownish; soles yellow; claws dusky. (*Scully.*)

Length 4·2 inches, tail 1·8, wing 2·2, tarsus ·75, bill from gape ·5. The female is smaller.

The amount of grey on the back varies much. Some specimens have only the upper back grey, while others have the whole plumage quite down to the rump grey, and a specimen from Sikhim has a band of green across the back with grey below it. Specimens from the North-west have the grey much paler; but I cannot separate *C. albosuperciliaris* from *C. xanthoschista*.

I introduce this bird into my list on the authority of Mr. Blyth, who recorded it from Arrakan some years ago. It has not been observed again by any of the ornithologists who have more recently been working in Burmah.

It inhabits the Himalayas from Assam up to the North-west Provinces

and is probably also found in the Indo-Burmese countries. It has been observed in the Khasia hills.

There is nothing special on record about its habits. Mr. Gammie found the nest in Sikhim in May: it was a domed structure made of moss and was placed on the ground; it contained four pure white eggs.

258. CRYPTOLOPHA SUPERCILIARIS.

THE YELLOW-BELLIED FLYCATCHER.

Abornis superciliaris, *Tick. J. A. S. B.* xxviii. p. 414; *Bl. B. Burm.* p. 106; *Hume, S. F.* iii. p. 140; *Hume & Dav. S. F.* vi. p. 359; *Anders. Yunnan Exped.* p. 626; *Hume, S. F.* viii. p. 102; *Bingham, S. F.* ix. p. 188. **Abornis albigularis**, *Jerd. & Bl. P. Z. S.* 1861, p. 200. **Abornis flaviventris**, *Jerd. B. Ind.* ii. p. 203. **Cryptolopha superciliaris**, *Sharpe, Cat. Birds B. Mus.* iv. p. 402.

Description.—*Male and female.* Forehead and crown as far back as the eyes grey; remainder of upper plumage oily greenish yellow; a distinct white supercilium from the bill to the nape; lores and behind the eye brown; cheeks and ear-coverts mingled grey and white; chin, throat and upper breast white; remainder of lower plumage bright yellow; wings black, edged with olive-green; coverts pale brown, edged with olive-green; tail brown, edged outside with olive-brown and inside with pale rufous.

Bill horn-colour, plumbeous at the base of the lower mandible; mouth yellow; eyelids grey; iris dark brown; legs and claws yellow.

Length 4·2 inches, tail 1·8, wing 2·1, tarsus ·75, bill from gape ·55. The female is smaller.

The Yellow-bellied Flycatcher probably occurs in Arrakan, but it has not yet been recorded from thence. I have procured it in various parts of Pegu, both in the hills and in the plains, but it is rare. I shot one specimen on the 15th June at Wanet-Kone, on the Pegu road, which clearly shows it to be a resident species in Pegu. Capt. Wardlaw Ramsay procured it in the Tonghoo hills and also in Karennee. Mr. Davison states that this Flycatcher is sparingly distributed throughout Tenasserim, and Capt. Bingham got it in the Thoungyeen valley.

It extends through the Indo-Burmese countries into the Himalayas, where it is found as far west as Nipal.

Capt. Bingham found the nest on the 9th of March near the Zammee river in Tenasserim. It consisted of a mass of fibres placed in a bamboo which had been cut down and then left leaning against a bush. There were three eggs, white speckled with pinkish claret-colour.

Genus CULICICAPA, *Swinhoe*.

259. CULICICAPA CEYLONENSIS.

THE GREY-HEADED FLYCATCHER.

Platyrrhynchus ceylonensis, *Swains. Zool. Ill.* ser. 1, pl. xiii. **Cryptolopha cinereocapilla** (*Vieill.*), *Jerd. B. Ind.* i. p. 455. **Myialestes cinereocapilla** (*Vieill.*), *Hume, Nests and Eggs*, p. 205; *Bl. & Wald. B. Burm.* p. 132. **Culicicapa ceylonensis**, *Salvad. Ucc. Born.* p. 134; *Hume, S. F.* viii. p. 92; *Scully, S. F.* viii. p. 275; *Legge, Birds Ceylon*, p. 410; *Sharpe, Cat. Birds B. Mus.* iv. p. 369. **Culicicapa cinereocapilla**, *Hume, S. F.* iii. p. 104.

Description.—*Male and female.* The whole head, neck and breast ashy, darker on the crown, the feathers of which are centred with darker; remainder of the lower plumage bright yellow; under wing-coverts pale yellow; the lores and the edges of the eyelids whitish; back, rump, scapulars and upper tail-coverts greenish yellow, brightest on the rump; wings and their coverts dark brown, the outer webs of all the feathers except the first two primaries edged with bright greenish yellow; the lesser wing-coverts more broadly edged with the same on both webs; tail-feathers dark brown, the outer webs of all but the outer pair broadly edged with greenish yellow.

The *young* appear to be like the adult.

Iris dark hazel; bill brown, paler at the base and gape; mouth yellow; legs yellowish brown; claws horn-colour.

Length 5 inches, tail 2·2, wing 2·4, tarsus ·53, bill from gape ·55. The female is of the same size.

The Grey-headed Flycatcher, according to Mr. Blyth, has been found in Arrakan. I have found it spread over the whole of Pegu as a winter visitor, common in Lower Pegu both in the hills and plains; in Upper Pegu confined apparently to the hills alone. Dr. Armstrong remarks that it is rare near Rangoon. Capt. Wardlaw Ramsay got it in the Tsankoo hills in Karennee at an elevation of 3500 feet. Mr. Davison states that it is generally distributed throughout the whole of Tenasserim, and Capt. Bingham found it abundant in the Thoungyeen valley.

It extends down the Malay peninsula to Java and Borneo. To the north it is found throughout the Indo-Burmese countries, and it ranges over the whole peninsula of India. It breeds in the Himalayas and in the Nilghiris at considerable elevations.

This species is found a good deal in mango-groves and other places where the trees are large and dense. It flits about very actively, catching insects on the wing.

The nest is a small cup made of moss, and is placed against the face of a rock or the trunk of a tree. The eggs, three in number, are yellowish white speckled with various shades of brown.

Genus HEMICHELIDON, *Hodgs.*

260. HEMICHELIDON SIBIRICA.

THE SOOTY FLYCATCHER.

Muscicapa sibirica, *Gm. Syst. Nat.* i. p. 936. **Hemichelidon fuliginosa**, *Hodgs. P. Z. S.* 1845, p. 32; *Hume & Henders. Lah. to Yark.* p. 184, pl. iv.; *Jerd. B. Ind.* i. p. 458. **Hemichelidon sibirica**, *Hume, Nests and Eggs*, p. 206; *id. S. F.* iii. p. 104; *David et Oust. Ois. Chine*, p. 122; *Hume, S. F.* viii. p. 92; *Sharpe, Cat. Birds B. Mus.* iv. p. 120. **Butalis sibiricus**, *Bl. B. Burm* p. 104.

Description.—*Male and female.* Upper plumage brown, the feathers of the head with darker centres, and those of the wings more or less edged paler; tail plain brown; a ring of feathers round the eye white; lores mixed white and brown; sides of the face like the back; chin, throat, breast and sides of the body smoky brown dashed with grey in places; an indistinct white patch on the lower throat; abdomen, vent and under tail-coverts white, the latter mixed with brown. After the autumn moult the margins to the wing-feathers are broader and more rufous.

The *young* are spotted with fulvous or fulvous-white above, and the margins to the wing-feathers are very broad; the upper wing-coverts are very broadly tipped with reddish brown.

Upper mandible dark brown, lower mandible yellowish; iris brown; legs brownish black.

Length 4·6 inches, tail 2, wing 2·8, tarsus ·5, bill from gape ·55.

The Sooty Flycatcher is spread over the whole of Burmah, but is a rare winter visitor. I procured it on the Pegu hills near the frontier, and Dr. Armstrong got it at Elephant Point, but found it rare. Capt. Wardlaw Ramsay mentions his getting a young bird on the Tonghoo hills in December, and Mr. Davison states that it is everywhere scarce in Tenasserim.

It extends down the Malay peninsula, and is also found in China and Eastern Siberia. It ranges through the Indo-Burmese countries, and occurs pretty nearly over the whole peninsula of India, nesting in the Himalayas.

The Sooty Flycatcher makes a nest of moss against the side of a tree-trunk or on the broken end of a branch, and lays three eggs, which are dull green marked with reddish brown.

261. HEMICHELIDON FERRUGINEA.

THE FERRUGINOUS FLYCATCHER.

Hemichelidon ferruginea, *Hodgs. P. Z. S.* 1845, p. 32; *Hume, Nests and Eggs*, p. 207; *Sharpe, Cat. Birds B. Mus.* iv. p. 122. **Butalis ferrugineus**, *Bl. B. Burm.* p. 104; *David et Oust. Ois. Chine*, p. 121. **Alseonax ferrugineus**, *Jerd. B. Ind.* i. p. 460; *Hume & Dav. S. F.* vi. p. 227; *Bingham, S. F.* ix. p. 175; *Oates, S. F.* x. p. 204.

Description.—*Male and female.* Forehead and crown of head dark brown; back, scapulars, lesser wing-coverts, rump and upper tail-coverts reddish brown, changing to chestnut on the latter two parts; median and greater coverts brown, edged and tipped with chestnut; quills dark brown, the later secondaries and tertiaries edged with reddish brown; all the quills lined inside with buff; tail reddish brown, more or less shaded with brown; a distinct ring of feathers round the eye pale buff; lores and ear-coverts mixed rufous and brown; lower plumage chestnut, the throat mixed a good deal with brown and the lower throat white, forming a well-defined patch.

Bill dusky, fleshy yellow at the base beneath; legs pale whitish fleshy; irides dark brown. (*Jerdon.*)

Length 5 inches, tail 2, wing 2·7, tarsus ·5, bill from gape ·65.

The Ferruginous Flycatcher is a rare winter visitor to British Burmah. In the course of some years I have procured only two or three specimens near Pegu. Mr. Blyth received it from Thayetmyo, and Mr. Davison procured a young bird in Tenasserim which Mr. Hume doubtfully identified with the present species, but subsequently two adults were got at the foot of Nwalabo. Capt. Bingham secured one specimen and saw another in the Thoungyeen valley.

Out of Burmah it has been found in the Malay peninsula and Cochin China, and it extends into China and India, nesting in the Himalayas.

Genus *ALSEONAX*, *Cabanis*.262. *ALSEONAX LATIROSTRIS*.

THE BROWN FLYCATCHER.

Muscicapa latirostris, *Raffles, Trans. Linn. Soc.* xiii. p. 312. **Butalis terricolor**, *Bl. J. A. S. B.* xvi. p. 120. **Muscicapa cinereo-alba**, *Temm. & Schl. Faun. Jap., Aves*, p. 42, pl. 15. **Alseonax latirostris**, *Jerd. B. Ind.* i. p. 459; *Hume & Henders. Lah. to Yark.* p. 185, pl. v.; *Hume, S. F.* ii. p. 219; *Salvad. Ucc. Born.* p. 129; *Brooks, S. F.* iii. p. 276, iv. p. 273, v. p. 470; *Sharpe, Cat. Birds B. Mus.* iv. p. 127; *Scully, S. F.* viii. p. 276; *Legge, Birds Ceylon*, p. 415; *Hume, S. F.* viii. p. 92; *Brooks, S. F.* ix. p. 225. **Alseonax terricolor**, *Jerd. B. Ind.* i. p. 460; *Brooks, S. F.* iii. p. 234. **Butalis latirostris**, *Bl. B. Burm.* p. 104; *David et Oust. Ois. Chine*, p. 123.

Description.—*Male and female.* Upper plumage ashy brown, the feathers of the crown darker at the centres; tail dark brown, the outer feathers very narrowly tipped whitish; wings and coverts dark brown, all but the primaries broadly edged with rusty white; lores and a ring of feathers round the eye white; sides of the head brown, like the back; lower plumage white, tinged with ashy on the breast and sides of the body.

Immature birds are strongly tinged all over with rufous.

Young birds have broad fulvous margins to all the feathers of the upper plumage and elongated spots on the head.

Bill black, the base of the lower mandible yellow; mouth orange; iris brown; legs and claws black. An immature bird had the whole lower mandible fleshy yellow except the tip, which was dusky.

Length 5·2 inches, tail 2, wing 2·85, tarsus ·5, bill from gape ·7.

The Brown Flycatcher is a winter visitor to Burmah. Some birds would appear, however, to stay in Pegu all the year round or to nest close by; for I shot an adult at Kyeikpadein on the 21st July and a quite young bird on the 30th of the same month, and they become quite common after the 24th of September.

It is abundant in the southern half of Pegu, and probably also in the northern portion, although I have not observed it there. Capt. Wardlaw Ramsay shot it at Tonghoo. Mr. Blyth received it from Arrakan, where it is no doubt very common. Mr. Davison states that he observed it only in the southern half of Tenasserim. As this bird has a very large range, it is just as likely to occur in the northern half as in the southern, and was probably overlooked by Mr. Davison.

Out of Burmah it extends down the Malay peninsula to the archipelago; and it is found spread over India and China in winter and in Northern Asia in summer.

This Flycatcher and the two preceding are much alike in habits. They station themselves on an elevated perch and sit still till some passing insect attracts their notice, when they immediately launch out and catch it. They are all remarkably silent.

Genus MUSCICAPA, *Linn.*

263. MUSCICAPA ALBICILLA.

THE WHITE-TAILED ROBIN-FLYCATCHER.

Muscicapa albicilla, *Pall. Zoogr. Rosso-Asiat.* i. p. 462, *Aves*, tab. 1. **Muscicapa albicilla**, *Sharpe, Cat. Birds B. Mus.* iv. p. 162. **Erythrostera leucura** (*Gm.*), *Jerd. B. Ind.* i. p. 481; *Bl. B. Burm.* p. 103. **Erythrostera albicilla**, *Anders. Yunnan Exped.* p. 621; *Hume & Dav. S. F.* vi. p. 233; *David et Oust. Ois. Chine*, p. 120; *Scully, S. F.* viii. p. 280; *Hume, S. F.* viii. p. 93.

Description.—*Male in summer.* The upper plumage and wings olive-brown, the latter margined paler; upper tail-coverts black; tail black, the four outer pairs of feathers white for about two thirds of their length from the base; lores mixed ashy and white; chin and throat orange; ear-coverts, cheeks and a band passing round the orange of the throat pure ashy, extending on to the upper breast in many specimens; remainder of lower plumage ashy white.

The *male in winter* loses the orange on the chin and throat, and the lower plumage is tinged with buff; there is a conspicuous ring of white feathers round the eye, which does not appear to be present in the summer.

The *female* at all seasons is like the male in summer.

Bill dark brown, yellowish at the gape; mouth yellow; iris hazel-brown; legs and claws black; eyelids grey.

Length 5·1 inches, tail 2·1, wing 2·75, tarsus ·65, bill from gape ·6. The female is of the same size.

The amount of orange on the throat varies very much, and it is not easy to draw a line between this bird and *M. parva* of Europe.

The White-tailed Robin-Flycatcher is a cold-weather visitor to Burmah. It is common in Pegu and spread over the whole Division. I have observed it from the middle of November to the end of March. Mr. Blyth records it from Arrakan and says that it is very common about Akyab, and Mr. Shopland sent me specimens from thence. Capt. Wardlaw Ramsay met with it on the Karin hills near Tonghoo. It appears to be spread over the whole of Tenasserim; and Capt. Bingham states that it arrives in the Thoungyeen valley early in September before the rains are over.

This bird has a wide range, extending in winter over the whole of India and S. China, and summering in Eastern Siberia and N. China.

This Flycatcher is found chiefly in gardens and low jungle where there are a few large trees. It plays among the branches, catching insects by short snatches and springs. It is in the habit of shaking its tail up and down frequently, and resembles the Bush-Chats in this particular; but it does not descend to the ground as they do.

Genus PRATINCOLA, *Koch*.

264. PRATINCOLA MAURA.

THE INDIAN BUSH-CHAT.

Motacilla maura, *Pall. Reis.* ii. *Anhang*, p. 708. **Pratincola indica**, *Bl. J. A. S. B.* xvi. p. 129; *Jerd. B. Ind.* ii. p. 124; *Brooks, S. F.* iii. p. 238; *Severtz. S. F.* iii. p. 429; *Bl. & Wald. B. Burm.* p. 102; *Brooks, S. F.* iv. p. 274; *David et Oust. Ois. Chine*, p. 167; *Anders. Yunnan Exped.* p. 618; *Hume & Dav. S. F.* vi. p. 334; *Hume, S. F.* viii. p. 99. **Pratincola rubicola** (*Linn.*), *Hume, Nests and Eggs*, p. 316. **Pratincola albosuperciliaris**, *Hume, S. F.* i. p. 307. **Pratincola maura**, *Sharpe, Cat. Birds B. Mus.* iv. p. 188.

Description.—*Male in breeding-plumage.* The whole head, chin, throat and upper plumage black, with fulvous tips to a few of the feathers; tail black; sides of the neck white; wings black, the quills obsoletely margined with fulvous, and all the inner coverts and the bases of the tertiaries white, forming a very conspicuous wing-spot; upper tail-coverts and the tips of the rump-feathers white; breast and fore neck chestnut; under wing-coverts black; remainder of the lower plumage white.

Female in summer. Upper plumage brown, with buff-coloured edgings to all the feathers, coverts and quills included; upper tail-coverts and tips of the rump-feathers sandy buff; some of the inner wing-coverts and tertiaries white; tail dark brown with paler edgings; chin and throat buffy white; remainder of the lower plumage dirty sandy buff.

In *winter* both sexes resemble the female in summer, but the buffy edgings to the feathers are very broad and distinct, and the colour of the lower plumage is much brighter. The male has the bases of the feathers of the head and upper plumage black, showing through a good deal.

Bill, legs and feet black; iris dark brown.

Length 5 inches, tail 2, wing 2·6, tarsus ·8, bill from gape ·65. The female is rather smaller.

This species differs from *P. rubicola* (the European race) in having the upper tail-coverts unspotted and the axillaries black. *P. rubicola* has the former marked with brown shaft-stripes in both sexes and the latter white with black bases.

The Indian Bush-Chat is a very common winter visitor to the plains of British Burmah. I have observed it in every portion of Pegu that I have visited; and I once shot a specimen on the 18th August, an extraordinarily early date for its appearance.

Numerous observers have noted the occurrence of this species in Burmah. It extends quite down to the extreme southern point of Tenasserim, and Capt. Bingham got it in the Thoungyeen valley.

It has a very extensive range. In winter it is found spread over China,

the Indo-Burmese countries and the whole peninsula of India, extending westwards into European limits. In summer most of the birds go to Siberia and Central Asia, a few, however, remaining in the Himalayas to breed.

They breed in these mountains from March to July. The nest, a neat cup made chiefly of grass, is placed either in a thick bush or in a crevice in a stone wall. The eggs, four or five in number, are pale green marked with dull brownish red.

This Bush-Chat is found in all parts of the country except forest. It is seen perched on a bush, a post, a stalk of corn or grass, or even on a clod of earth, watching for insects, which it always catches on the ground, alighting for only just sufficient time to capture its prey. It expands and moves its tail frequently.

265. PRATINCOLA LEUCURA.

THE WHITE-TAILED CHAT.

Pratincola leucura, *Bl. J. A. S. B.* xvi. p. 474; *Jerd. B. Ind.* ii. p. 126; *Hume, S. F.* i. p. 183, iii. p. 135; *Bl. B. Burm.* p. 102; *Hume, S. F.* v. p. 241, viii. p. 99; *Brooks, S. F.* viii. p. 473; *Sharpe, Cat. Birds B. Mus.* iv. p. 194.

Description.—*Male in summer.* The whole upper plumage, sides of the head, chin and throat black; the tips of the rump-feathers and tail-coverts white; central tail-feathers black, the others almost entirely white on the inner webs and at the base of the outer ones; wings black, the coverts next the body and the bases of the tertiaries pure white, some of the quills narrowly margined with whitish; breast rufous; sides of the throat and neck and the remainder of the lower plumage white.

Male in winter. The front and sides of the head, as well as the chin and upper throat, usually remain black; but the remaining parts, which are black in summer, become broadly margined with sandy brown; the upper tail-coverts are tinged with fulvous at the tips; the white of the tail is less pure and the white of the lower plumage is suffused with rusty; the throat is sometimes margined with white, and the sides of the neck are the same colour as the margins of the upper plumage.

The *female* has no white on the tail, and is of the same colour as the female of *P. maura*, from which it cannot be distinguished.

Length 5 inches, tail 2·1, wing 2·6, tarsus ·7, bill from gape ·7. The female appears to be of about the same size.

The White-tailed Chat is a somewhat rare species. I procured it at Boulay, a few miles south of Thayetmyo, and it was sent from Tonghoo by the late Colonel Lloyd. Mr. Blanford states that he found it on the

banks of the Irrawaddy near Thayetmyo, and that it was common and a constant resident. Mr. Davison observed it to be common in jheels in the neighbourhood of Pahpoon.

The range of this bird is tolerably extensive. It appears to be found throughout Northern India up to Scinde, and it has been procured in the hill-tracts of Eastern Bengal. It is probably found in the Indo-Burmese countries.

In habits this species does not differ from the preceding excepting in that it is always found in the neighbourhood of swamps and wet paddy-fields.

266. PRATINCOLA CAPRATA.

THE PIED CHAT.

Motacilla caprata, Linn. *S. N.* i. p. 335. **Pratincola caprata**, Jerd. *B. Ind.* ii. p. 123; *Hume, Nests and Eggs*, p. 312; *Hume, S. F.* i. p. 182; *Salvad. Ucc. Born.* p. 252; *Bl. B. Burm.* p. 102; *Anders. Yunnan Exped.* p. 617; *Hume, S. F.* viii. p. 99; *Sharpe, Cat. Birds B. Mus.* iv. p. 195.

Description.—*Male.* The whole plumage black, except the lower rump, upper and under tail-coverts and the wing-coverts next the body, which are white; after the autumn moult, for two or three months the feathers are all fringed with rufous-brown.

The *female* has the upper plumage grey with dark brown mesial streaks, the back tinged with rufous; upper tail-coverts bright reddish brown; tail black; throat and chin brownish grey; breast, upper abdomen and sides wood-brown with dark mesial streaks; lower abdomen the same, but without streaks; under tail-coverts rufescent; lores and feathers in front of the eye mixed with white; quills and larger coverts brown, narrowly edged with reddish white; lesser coverts brown, broadly edged on both webs with light buff; under wing-coverts rather bright buff with dark centres.

The *young* are fulvous-brown mottled all over with dusky.

Iris brown; eyelids plumbeous; bill black; mouth dusky; legs and claws black.

Length 5·5 inches, tail 2·2, wing 2·8, tarsus ·85, bill from gape ·7. The female is rather smaller.

The Pied Chat is one of the commonest birds of Burmah, being found in every part of the country except forest-land. It is a resident all the year through.

Capt. Wardlaw Ramsay procured it in Karennee at 3500 feet elevation. According to Mr. Davison's observations it occurs only in the northern and central portions of Tenasserim, and is rare there. I know of no

portion of Pegu, suited to its habits, where it is not common; and Mr. Blyth states that it is found in Arrakan, where I imagine it must be common in all the lowlands.

It is found over the Indo-Burmese countries and nearly the whole peninsula of India. In the extreme south of the Empire it is replaced by a larger and doubtfully distinct race, *P. bicolor*. It extends down the Malay peninsula to Java, Borneo and the Philippine Islands.

The Pied Chat is a familiar and well-known bird, found in all the cultivated portions of the country and also in those parts where the jungle is open. It has the same habits as *P. maura*. I have frequently found the nest in Pegu in April and May. It is usually placed in a hole in the ground, the footprint of a bullock serving the purpose very frequently; sometimes it is placed on the ground under the shelter of a tuft of grass. The nest itself is a mere pad of dry grass. The eggs, three or four in number, are pale green marked with dull reddish brown.

Genus OREICOLA, *Bonap.*

267. OREICOLA JERDONI.

THE BLACK-AND-WHITE BUSH-CHAT.

Rhodophila melanoleuca, *Jerd. B. Ind.* ii. p. 128, iii. *App.* p. 872 (*nec Vieill.*).
Oreicola jerdoni, *Bl. Ibis*, 1867, p. 14; *Beavan, Ibis*, 1867, p. 449; *Bl. B. Burm.* p. 101; *Hume, S. F.* viii. p. 99; *Sharpe, Cat. Birds B. Mus.* iv. p. 264; *Inglis, S. F.* ix. p. 254. **Pratincola jerdoni**, *Anders. Yunnan Exped.* p. 616.

Description.—*Male.* The whole upper plumage, wings, tail, sides of the head and neck deep black; the whole lower plumage white; under wing-coverts black mixed with white.

The *female* is brown above, tinged with rufous, especially on the rump and upper tail-coverts; tail brown, edged paler; wings and their coverts brown edged with rufous; sides of the head mixed ashy and brown; lower plumage uniform pale fulvous.

Bill and legs black; irides dark brown. (*Jerdon.*)

Length 6 inches, tail 2·7, wing 2·7, tarsus ·85, bill from gape ·75. The female is a little smaller.

The Black-and-White Bush-Chat is a bird of extreme rarity. It has only once been procured in British Burmah, when Mr. Blanford met with it in long elephant-grass in the northern portion of the Bassein district.

It has been found near Bhamo in Upper Burmah by Dr. Anderson; and the taxidermist of the Phayre Museum in Rangoon, Mr. Swarries,

procured it at the same place. It is found in Cachar, and extends into India. It is probably a permanent resident in Burmah. It appears to be found in grass-land, and is very likely to be mistaken at first sight for *Pratincola caprata*.

268. OREICOLA FERREA.

THE DARK-GREY BUSH-CHAT.

Rubecola ferrea, *Hodgs. in Gray's Zool. Misc.* p. 83. **Pratincola ferrea**, *Jerd. B. Ind.* ii. p. 127; *Hume, Nests and Eggs*, p. 318; *Hume & Henders. Lah. to Yark.* p. 205, pl. xii.; *Bl. B. Burm.* p. 101; *Hume, S. F.* iii. p. 135; *Brooks, S. F.* iii. p. 239; *David et Oust. Ois. Chine*, p. 168; *Anders. Yunnan Exped.* p. 617; *Hume, S. F.* viii. p. 99; *Scully, S. F.* viii. p. 301. **Oreicola ferrea**, *Sharpe, Cat. Birds B. Mus.* iv. p. 266.

Description.—*Male in summer.* The whole head above, back and scapulars black, each feather with a broad edging of deep grey; rump grey without any black; upper tail-coverts black edged with grey; wings black, each feather of the coverts and tertiaries broadly, and the primaries and secondaries narrowly, edged with grey; the inner median coverts tipped with white, the inner greater coverts wholly white; tail black, edged with grey on both webs; a distinct supercilium commencing at the nostrils whitish; sides of the head black; angle of the chin black; lower plumage white, tinged with grey on the breast and flanks.

Male in winter. All the feathers of the upper plumage are fringed with rusty, and the black centres to the feathers are nearly concealed from view; the grey between the black centres and the rusty fringes is also only partially visible, except on the rump, where the prevailing colour is grey; the other portions of the plumage are much the same as in summer.

The *female* is the same all the year through; the whole upper plumage is reddish brown, turning to chestnut on the upper tail-coverts; the wings and tail are brown, broadly edged with chestnut-brown; the sides of the head are reddish brown mottled with black; the chin and throat are whitish; the remainder of the lower plumage buff, more or less pure according to the age of the plumage.

Iris brown; bill black; legs dark brown.

Length 5·9 inches, tail 2·7, wing 2·75, tarsus ·8, bill from gape ·65. The female is somewhat smaller.

The Dark-grey Bush-Chat is a somewhat rare winter visitor to British Burmah. Mr. Blyth has received it from Arrakan; I secured one specimen near Prome; and Capt. Wardlaw Ramsay got it at Tonghoo, in the

Tonghoo hills, and also in Karennee, at elevations of from 2500 to 4000 feet.

Mr. Davison says that it is rare in the northern portions of Tenasserim. He procured specimens at the Pah-Choung, in the pine-forests of the Salween and at Kyouknyat. Capt. Bingham records it from the Thoungyeen valley.

It extends into South China, the Indo-Burmese countries and the greater part of Northern India. In the summer some of the birds may possibly migrate to Central Asia, but a large number appear to remain in the Himalayas to breed. They make a small nest of grass on the ground under a clod or tuft of grass, and the eggs are similar to those of *P. maura*.

Genus XANTHOPYGIA, *Blyth*.

269. XANTHOPYGIA FULIGINOSA.

THE PLUMBEOUS WATER-ROBIN.

Phoenicura fuliginosa, *Vig. P. Z. S.* 1831, p. 35. **Ruticilla fuliginosa**, *Jerd. B. Ind.* ii. p. 142; *Hume & Henders. Lah. to Yark.* p. 212, pl. xv. **Nymphæa fuliginosa**, *Hume, Nests and Eggs*, p. 322. **Rhyacornis fuliginosa**, *Bl. B. Burm.* p. 101; *David et Oust. Ois. Chine*, p. 171; *Hume, S. F.* viii. p. 100; *Scully, S. F.* viii. p. 303; *Oates, S. F.* x. p. 176. **Xanthopygia fuliginosa**, *Sharpe, Cat. Birds B. Mus.* iv. p. 253.

Description.—*Male*. The whole plumage dull cyaneous; tail-coverts, both upper and lower, the vent and the tail bright chestnut; wings black with bluish edgings.

Female. Upper plumage from the forehead to the rump dull bluish brown; upper and under tail-coverts white; tail with the base white, the outer four pairs of feathers with an increasing quantity of white, till on the outermost pair it occupies all the feather except a margin; the portion of tail which is not white dark brown; lores and ear-coverts dusky, mottled with white; whole lower plumage ashy brown, each feather centred with whitish and margined with paler ashy; upper wing-coverts and tertiaries brown, edged with rufescent and tipped with whitish; quills brown, edged narrowly with rufescent.

Bill black; gape fleshy white; irides dark brown; feet dark horny brown; claws black. (*Scully*.)

Length 5·4 inches, tail 2·2, wing 2·8, tarsus ·85, bill from gape ·7. The female is of about the same size.

The Plumbeous Water-Robin is stated by Mr. Blyth to have occurred in

Arrakan, and he apparently also received the bird from Thayetmyo. I have never met with it myself.

It is found in South China, the hill-tracts of Eastern Bengal, and along the whole range of the Himalayas from Assam to the north-west.

Dr. Jerdon says :—" It lives entirely along rivers and mountain-torrents, and may often be seen on a wet and slippery rock, just above a boiling rapid ; it climbs up the wet rocks with great facility, and every now and then alighting on a rock, it spreads its tail, but does not vibrate it like some of the Redstarts. Its flight is rapid and direct. It feeds on various aquatic insects and larvæ, some kinds of which are always found just at the edge of the water, and which a wave often leaves behind it on a rock."

The nest, made chiefly of moss, is placed on the shelf of a rock or in a hole in a bank, and the eggs, three to five in number, are faint green marked with pale reddish brown.

Genus STOPAROLA, Bl.

270. STOPAROLA MELANOPS.

THE VERDITER FLYCATCHER.

Muscicapa melanops, Vig. *P. Z. S.* 1831, p. 171. **Eumyias melanops**, Jerd. *B. Ind.* i. p. 463 ; *Bl. B. Burm.* p. 104 ; *Armstrong, S. F.* iv. p. 323 ; *Anders. Yunnan Exped.* p. 622. **Stoporala melanops**, Hume, *Nests and Eggs*, p. 208 ; *David et Oust. Ois. Chine*, p. 116 ; *Hume, S. F.* viii. p. 92. **Stoparola melanops**, Sharpe, *Cat. Birds B. Mus.* iv. p. 438. **Glaucomyias melanops**, Scully, *S. F.* viii. p. 277.

Description.—*Male.* Lores, feathers in front of the eye and the feathers at the base of the upper mandible black ; the whole plumage with these exceptions verditer-blue, brightest on the forehead, chin, throat, breast and upper tail-coverts ; under tail-coverts broadly tipped with white ; tail blue, with the shafts black and the inner webs edged with brown ; primaries and secondaries blue on the outer and black on the inner webs ; the tertiaries wholly blue ; upper wing-coverts blue.

The *female* has the blue of the head and body much duller, and the chin and throat are mottled with whitish ; the lores are brown, and the under tail-coverts are more broadly tipped with white.

The *young* are greenish grey, the sides of the head and the whole lower plumage being spotted with fulvous. At one stage there appear to be white spots on the head and back. One specimen I procured was in adult plumage, but it had a large white spot on the centre of the nape.

Bill and legs black ; iris brown ; mouth flesh-colour ; claws black.

Length 6·1 inches, tail 2·8, wing 3·2, tarsus ·65, bill from gape ·7. The female is of much the same size.

The Verditer Flycatcher is a winter visitor to the province, and appears to be common and generally distributed. Mr. Blyth received it from Arrakan. I found it common near Pegu, in some years more abundant than in others. Mr. Blanford got it at Bassein, and Dr. Armstrong at Syriam and Elephant Point. Capt. Wardlaw Ramsay states that it frequents rocky hills in Karennee from 700 to 5000 feet elevation. Mr. Davison found it generally distributed during the cold season alike in the hills and plains throughout Tenasserim ; and Capt. Bingham observed it in the Thoungyeen valley from October to April.

It extends into the Malay peninsula and is found in Cochin China and South China. It is spread over the Indo-Burmese countries, and ranges over the whole peninsula of India, retiring in the summer to the Himalayas to breed.

It appears to have the usual habits of the typical Flycatchers. The nest, a cup-shaped structure of moss, is placed sometimes under a small wooden bridge and sometimes in a hole in a stump. Occasionally it is placed on a rafter or under the eaves of a house. The eggs, four in number, are white speckled with red.

Genus POLIOMYIAS, *Sharpe*.

271. POLIOMYIAS HODGSONI.

THE RUSTY-BREASTED FLYCATCHER.

Siphia erythaca, *Jerd. & Bl. P. Z. S.* 1861, p. 201 ; *Jerd. B. Ind.* i. p. 480 ; *Hume, S. F.* ii. p. 458 ; *Wald. in Bl. B. Burm.* p. 103 ; *Hume, S. F.* v. p. 137 ; *Hume & Dav. S. F.* vi. p. 233 ; *Hume, S. F.* viii. p. 93. **Siphia hodgsoni**, *Verr. N. Arch. Mus.* vi. *Bull.* p. 34, vii. p. 29 ; *David et Oust. Ois. Chine*, p. 115. **Polio-myias hodgsoni**, *Sharpe, Cat. Birds B. Mus.* iv. p. 203.

Description.—*Male.* The whole upper plumage dull cyaneous ; ear-coverts the same ; lores, feathers under the eye, the cheeks and upper tail-coverts black ; wing-coverts brown, edged with cyaneous ; quills black, edged with brown ; tail black, the bases of all but the two central feathers white at the base ; sides of the neck and a patch on either side the breast like the back ; chin, throat, breast and abdomen rich orange ; lower abdomen, vent, flanks and under tail-coverts pale ferruginous.

Bill black ; legs and feet dark reddish horny ; irides very dark brown. (Davison.)

Length 5·5 inches, tail 2·5, wing 2·95, tarsus ·65, bill from gape ·55.

I have described above a male bird procured by Capt. Wardlaw Ramsay in Karennee. I have never seen a female, nor can I find any description of it. As Mr. Blyth confounded two distinct species under the name of *S. erythaca*, I think it better to follow Mr. Sharpe and adopt Verreaux's name.

A closely allied species is *P. luteola*, which will probably be found in Burmah. The wing-coverts of the male in this bird are white. The female is olive-brown above, with the wing-coverts all tipped with white, and the throat and breast are bright orange.

In Capt. Wardlaw Ramsay's collection is a Malaccan bird marked *S. erythaca*. It agrees so perfectly, however, with other birds from Borneo which are female *P. luteola* that I doubt its being the female of *P. hodgsoni*, and therefore I have not described it.

E. sordida, Godw.-Aust. (J. A. S. B. 1874, pt. ii. p. 158), is probably the female of *P. hodgsoni* ; but I have not been able to examine the type.

The Rusty-breasted Flycatcher was procured by Capt. Wardlaw Ramsay in the Karin hills, east of Tonghoo, at 4000 feet elevation. He appears to have got only one specimen there.

Mr. Davison remarks that it is confined to the higher hills of the northern and central portions of Tenasserim. He procured the bird in the pine-forests north of Pahpoo and near the summit of Mooleyit.

It has been got in Western China and in the Himalayas, but it appears to be an excessively rare bird.

Genus SIPHIA, *Hodgs.*

272. SIPHIA RUBECULOIDES.

THE BLUE-THROATED REDBREAST.

Phœnicura rubeculoides, Vig. *P. Z. S.* 1831, p. 35. **Cyornis rubeculoides**, Jerd. *B. Ind.* i. 466 ; *Hume, Nests and Eggs*, p. 211 ; *Hume, S. F.* iii. p. 104 ; *Bl. & Wald. B. Burm.* p. 103 ; *Hume & Dav. S. F.* vi. p. 227 ; *Anders. Yunnan Exped.* p. 619 ; *Hume, S. F.* viii. p. 92. **Siphia rubeculoides**, Sharpe, *Cat. Birds B. Mus.* iv. p. 445 ; *Legge, Birds Ceylon*, p. 424.

Description.—*Male.* Forehead and streak over the eye glistening blue ; lores and feathers at the base of bill black ; ear-coverts dusky blue ; the

whole upper plumage dark blue, the tail with black shafts and the inner webs mostly brown; wings dark brown, each feather narrowly edged with dark blue; lesser wing-coverts bright blue; larger coverts brown, edged with dark blue; cheeks, sides of the neck, throat and chin dusky blue; breast and upper abdomen bright ferruginous, running up to a point on the throat; lower abdomen and under tail-coverts white; under wing-coverts pale ferruginous.

The *female* has the lores albescent; the upper plumage is olive-brown, tinged with ferruginous, most strongly so on the forehead, the feathers round the eye and on the upper tail-coverts; wings and tail brown, edged externally with ferruginous; chin, throat and breast ruddy ferruginous; abdomen and under tail-coverts white.

The *young bird* is spotted all over with fulvous, and the tips of the feathers are blackish; the wings and tail are apparently from the first as in the adult.

Iris brown; bill black, flesh-coloured at the gape; legs and toes pale flesh-colour; claws pale horn-colour.

Length 5·7 inches, tail 2·4, wing 2·75, tarsus ·7, bill from gape ·7. The female is rather smaller.

The Blue-throated Redbreast is a very common winter visitor to the whole of British Burmah. Mr. Blyth records it from Arrakan. I have found it in every portion of Pegu, alike in the hills and in the plains, from the beginning of October to the end of April. Capt. Wardlaw Ramsay procured it in Karennee at from 600 to 2000 feet elevation. Mr. Davison tells us that it is common throughout Tenasserim and a permanent resident, but not ascending the highest hills, and Capt. Bingham obtained it in the Thoungyeen valley.

There is no record of its occurrence in the Malay peninsula or China; but it extends into India and is found over the whole peninsula. It retires in summer to the Himalayas to breed.

This species is found in all kinds of jungle, but more especially in thickly wooded localities.

Two nests found by Capt. Hutton at Mussoorie were made of moss and hair-like fibres, and were placed one in a hole in a bank and the other in a hole in a rock. The eggs were pale olive-green, marked with dull rufous.

273. SIPHIA TICKELLIÆ.

TICKELL'S BLUE REDBREAST.

Cyornis tickelliæ, *Bl. J. A. S. B.* xii. p. 941; *Jerd. B. Ind.* i. p. 467; *Hume, Nests and Eggs*, p. 212; *id. S. F.* i. p. 436; *Ball, S. F.* ii. p. 405; *Hume, S. F.* iii. p. 468. **Cyornis banyumas** (*Horsf.*), *Jerd. B. Ind.* i. p. 466. **Cyornis tickelli**, *Wald. in Bl. B. Burm.* p. 103; *Anders. Yunnan Exped.* p. 620; *Hume, S. F.* viii. p. 92. **Siphia tickelliæ**, *Sharpe, Cat. Birds B. Mus.* iv. p. 447; *Legge, Birds Ceylon*, p. 421.

Description.—*Male.* Similar to the male of *S. rubeculoides*, but with the rufous of the throat coming up into the angle of the chin, leaving only the mere point of the chin dusky blue. Of larger size.

The *female* is like the male in most respects; the general colour of the plumage is paler and duller blue; the lores are whitish; the sides of the head are concolorous with the crown; the forehead and eye-streak are more brilliant than the other parts; the shafts of the ear-coverts are white; the point of the chin is not dusky blue, but of the same colour as the throat.

The *young*, according to Capt. Legge, have the head and hind neck brown, with fulvous-yellow mesial lines; back brown, suffused with fulvescent, and each feather with a terminal spot of the same; wing-coverts with deep tips of a brighter hue than the markings of the back; quills and tail as in the adult; beneath, the throat and chest fulvescent, with a faint indication of a stripe along the edge of the lower mandible, and the feathers of the chest edged dusky.

Iris brown; bill blackish; legs and feet bluish brown, dusky bluish or bluish grey; the female has these parts paler. (*Legge.*)

Length 5·8 inches, tail 2·5, wing 2·8, tarsus ·7, bill from gape ·75. The female is of about the same size.

Tickell's Blue Redbreast was procured by Capt. Wardlaw Ramsay in Karennee. I have examined the specimens there obtained, and find them identical in all respects with Indian examples.

Dr. Anderson found it in Upper Burmah, and it is spread over the whole peninsula of India and Ceylon, where it appears to be a permanent resident throughout the year.

The nest, made of moss and dry leaves, is placed in the hole of a tree or wall. The breeding-season in Central India appears to be May and June. The eggs are greyish white speckled with dull reddish brown.

274. SIPHIA MAGNIROSTRIS.

THE LARGE-BILLED REDBREAST.

Cyornis magnirostris, *Bl. J. A. S. B.* xviii. p. 814; *Jerd. B. Ind.* i. p. 469; *Godw.-Aust. J. A. S. B.* xxxix. pt. ii. p. 100; *Hume, S. F.* viii. p. 92; *Sharpe, Cat. Birds B. Mus.* iv. p. 453.

Description.—Male. The whole upper plumage, cheeks, ear-coverts, sides of the neck and wing-coverts dull deep blue, brilliant on the forehead and over the lores and eyes; feathers immediately at the base of the upper mandible and the lores black; chin, throat and breast chestnut; sides of the breast blue; sides of the abdomen and flanks fulvous; centre of the abdomen and under tail-coverts white; under wing-coverts and axillaries clear buff; tail-feathers dark brown, suffused with blue on the outer webs; greater wing-coverts and quills dark brown, with an outer edging of dull blue.

The *female* is ashy above, tinged with fulvous on the back, scapulars, rump and upper tail-coverts; sides of the face and ear-coverts like the crown; lores and a ring of feathers round the eye white; chin, throat and under tail-coverts white; remainder of the lower plumage and under wing-coverts pale buff; lesser and median wing-coverts like the back; greater coverts and quills brown, edged with the colour of the back; tail fulvous, rather brighter at the edges.

Irides dark brown; legs pale flesh-colour. (*Godwin-Austen.*)

Length 6 inches, tail 2·5, wing 3·2, tarsus ·7, bill from gape ·9. The female appears to be of much the same size.

The Large-billed Redbreast has been known to occur in the extreme south of Tenasserim, where Mr. Davison found it rare. My men secured two specimens at Malewoon.

It will probably be found to be diffused over the whole of British Burmah, for it occurs in Cachar, the Eastern Bengal hills and the Eastern Himalayas. There is nothing known about its habits and nidification.

275. SIPHIA STROPHIATA.

THE ORANGE-GORGETED FLYCATCHER.

Siphia strophciata, *Hodgs. Ind. Rev.* i. p. 651; *Jerd. B. Ind.* i. p. 479; *Stoliczka, J. A. S. B.* xxxvii. pt. ii. p. 32; *Bl. B. Burm.* p. 103; *David et Oust. Ois. Chine*, p. 115; *Anders. Yunnan Exped.* p. 620; *Hume & Dav. S. F.* vi. p. 232; *Sharpe, Cat. Birds B. Mus.* iv. p. 455; *Hume, S. F.* viii. p. 92; *Scully, S. F.* viii. p. 278.

Description.—Male. Upper plumage olive-brown, tinged with fulvous

on the back and rump; upper tail-coverts black; feathers immediately at the base of the upper mandible, the lores, cheeks, chin and throat black; forehead and a line produced as far as the eye white; ear-coverts and feathers above the eye deep slaty; a patch on the throat bright chestnut; breast and sides of the neck slaty; abdomen, vent and under tail-coverts white; flanks olive-brown; lesser wing-coverts slaty; the other coverts and all the quills brown, edged exteriorly with fulvous; tail-feathers blackish; the pair next the centre one with a patch of white on the outer web; the others with a larger patch of white extending to both webs; under wing-coverts and axillaries light buff.

The *female* is very similar, but the orange patch on the throat is rather smaller, the white on the forehead is much less in extent, and the black of the face and throat is replaced by slaty.

The *young bird* is brown, both above and below, each feather streaked with fulvous. There is no throat-spot, but the tail is marked with white as in the adult. The first change to take place consists in the orange patch being indicated and the breast turning ashy. The streaks on the upper plumage are present to an advanced age.

Bill black; gape fleshy whitish; irides dark brown; feet dark horny brown; claws black. (*Scully.*)

Length 5·3 inches, tail 2·3, wing 3, tarsus ·8, bill from gape ·65. The female is rather smaller.

The Orange-gorgeted Flycatcher, according to Mr. Blyth, occurs in Arrakan and Tenasserim. Mr. Davison met with one solitary specimen of this species on Mooleyit mountain in Tenasserim, and there is no other record of its occurrence in Burmah.

It extends into India and China, and is probably only a winter visitor to Burmah.

Dr. Jerdon says, "The Orange-throated Flycatcher is found throughout the Eastern Himalayas at an elevation of from 6000 to 8000 feet and upwards. It is very common about Darjeeling, and may often be seen on the roadside, seated on a fallen tree or stone, frequently alighting on the ground to pick up an insect, occasionally making a dart at one in the air, and returning to its perch."

276. SIPHIA OLIVACEA.

HUME'S FLYCATCHER.

Cyornis olivacea, Hume, *S. F.* v. p. 338; Hume & Dav. *S. F.* vi. p. 229; Hume, *S. F.* viii. p. 92. *Siphia olivacea*, Sharpe, *Cat. Birds B. Mus.* iv. p. 457.

Description.—*Male and female.* The upper plumage greyish brown, tinged with fulvous on the back and rump; the lores and the sides of the head ashy, the shafts of the ear-coverts whitish; lower plumage whitish, the breast and the sides of the body tinged with ashy; tail rufous-brown, brighter on the outer webs; wing-coverts and quills brown, edged with fulvous-brown and tinged with rufous on the outer webs of the quills.

Bill black; iris brown; legs, feet and claws pinkish white. In the female the bill is brown. (*Davison.*)

Length 5·8 inches, tail 2·5, wing 3, tarsus ·75, bill from gape ·8. The female appears to be smaller.

Hume's Flycatcher was procured by Mr. Davison in the south of Tenasserim at Bankasoon, Malewoon and Tenasserim Town.

In the British Museum are two birds, one from Java and one from Borneo, which undoubtedly belong to this species.

Mr. Davison says, "This species, like its other congeners, keeps to the forest or its outskirts, and is usually seen singly. True Flycatchers, they perch on commanding twigs, whence they capture passing insects with short sharp flights, returning to the same perch. Not unfrequently they may be seen flying from branch to branch, evidently not feeding, and as they alight lowering their wings, jerking their tails, and uttering their peculiar prolonged *chir-r-r.*"

Genus MUSCICAPULA, *Blyth.*

277. MUSCICAPULA SUPERCILIARIS.

THE WHITE-BROWED BLUE FLYCATCHER.

Muscicapa superciliaris, Jerd. *Madr. Journ.* xi. p. 16. *Muscicapula superciliaris*, Jerd. *B. Ind.* i. p. 470; *Stoliczka, J. A. S. B.* xxxvii. pt. ii. p. 30; Hume, *Nests and Eggs*, p. 213; Ball, *S. F.* v. p. 415; Hume, *S. F.* viii. p. 92; Sharpe, *Cat. Birds B. Mus.* iv. p. 204. *Erythrosterna acornaus* (*Hodgs.*), Jerd. *B. Ind.* i. p. 483; Beavan, *Ibis*, 1870, p. 320; Bl. & Wald. *B. Burm.* p. 103; Hume & Dav. *S. F.* vi. p. 233; Hume *S. F.* viii. p. 93.

Description.—*Male.* The whole upper plumage, lesser and median wing-coverts, ear-coverts, cheeks and sides of the neck dull blue; greater wing-

coverts and quills dark brown, edged with pale bluish ; tail black edged with blue, the basal half of all the feathers except the central ones white ; lores black ; a broad distinct supercilium reaching to the nape white ; a broad collar across the breast, interrupted in the middle, blue like the back ; the whole lower plumage white.

The *female* has the upper plumage brown, the feathers of the head centred darker ; the forehead, rump and upper tail-coverts tinged with rufous ; wing-coverts, quills and tail brown, edged paler ; lores mixed rufous and white ; ear-coverts greyish brown with the shafts paler ; lower plumage white, sullied with brown on the breast and sides of the body.

Length about 4·7 inches, tail 1·9, wing 2·4, tarsus ·6, bill from gape ·6. The female is rather smaller.

I insert the present species in my catalogue on the strength of two female specimens procured by Capt. Wardlaw Ramsay in Karennee at an elevation of 2500 feet. No male was secured, and therefore I have had some difficulty in arriving at the determination of these two female birds. I am not sure that the females of this species can be separated with any certainty from the females of *M. astigma* ; but after examining all the specimens of both species that I have been able to get together, I incline to the opinion that Capt. Ramsay's birds belong to *M. superciliaris* rather than to *M. astigma*. Males of the two species are separable at a glance, *M. astigma* having no white at the base of the tail and no broad white supercilium.

Capt. Beavan some years ago procured a bird at Zwagaben in Tenasserim which he called *E. acornaus* with some doubt. It was probably the present species.

Observers in Burmah are recommended to pay great attention to these obscure Flycatchers, which, no doubt, are much commoner than is generally supposed.

The White-browed Blue Flycatcher has a considerable range, being found in the cold weather over a great part of India and nesting in the Himalayas.

The nest, which is a small cup made of moss and lined with fine roots and hairs, is placed in a hole of a tree or wall. The eggs, four to six in number, are pale green, almost entirely covered with brownish red.

278. MUSCICAPULA MACULATA.

THE LITTLE PIED FLYCATCHER.

Muscicapa maculata, *Tick. J. A. S. B.* ii. p. 574. **Erythrosterna pusilla**, *Bl. J. A. S. B.* xviii. p. 813; *Jerd. B. Ind.* i. p. 483; *Brooks, S. F.* v. p. 471. **Erythrosterna maculata**, *Jerd. B. Ind.* i. p. 483; *Bl. B. Burm.* p. 103; *Brooks, S. F.* iii. pp. 236, 277, viii. p. 470; *Hume, S. F.* viii. p. 93. **Muscicapula maculata**, *Sharpe, Cat. Birds B. Mus.* iv. p. 207.

Description.—*Male.* The whole upper plumage, including the lores, cheeks, ear-coverts and sides of the neck, black; a very broad superciliary streak, reaching to the nape and widening posteriorly, white; the whole lower plumage white; the wings black, the later secondaries edged with white on the outer webs; the remaining secondaries and all the primaries with an interior lining of white; the greater upper wing-coverts white, forming a broad band across the wing; tail black, the basal two thirds of all the feathers except the central pair white; the bases of the rump-feathers white, showing through when the plumage is disarranged.

The *female* has the upper plumage and lesser wing-coverts olive-brown, tinged with rufous; upper tail-coverts ferruginous; greater wing-coverts and quills brown, margined with pale rufous-brown; lores and sides of the head fulvescent brown, the shafts of the ear-coverts paler; lower plumage white, tinged with brown on the flanks and breast; tail dark brown, narrowly margined with rufous-brown; no white at the base of the tail.

Bill black; mouth whitish; iris light brown; eyelids plumbeous; legs and claws brown.

Length 4·4 inches, tail 1·75, wing 2·4, tarsus ·6, bill from gape ·55.

The Little Pied Flycatcher is rarely found in Burmah. I procured one specimen at Kyeikpadein, near Pegu, in the cold weather; Capt. Wardlaw Ramsay got it in Karennee from 3000 to 5000 feet elevation; Mr. Davison near the summit of Mooleyit in Tenasserim; and Capt. Bingham in the Meplay valley, also in Tenasserim. Mr. Blyth gives it from Arrakan.

It extends on the north into India and on the south to Java and Sumatra.

Genus NILTAVA, *Hodgs.*

279. NILTAVA SUNDARA.

THE RUFOUS-BELLIED FAIRY BLUE-CHAT.

Niltava sundara, *Hodgs. Ind. Rev.* i. p. 650; *Jerd. B. Ind.* i. p. 473; *Hume, Nests and Eggs*, p. 213; *Bl. B. Burm.* p. 102; *Hume & Dav. S. F.* vi. p. 231; *David et Oust. Ois. Chine*, p. 117; *Hume, S. F.* viii. p. 93; *Sharpe, Cat. Birds B. Mus.* iv. p. 463; *Hume, S. F.* ix. p. 234.

Description.—*Male.* Forehead, lores, sides of the head, chin and throat deep black; crown of the head, nape, rump, upper tail-coverts and a spot on either side of the neck glistening blue; lesser wing-coverts the same; median and greater coverts and quills dark brown, edged with purplish blue; back and scapulars purplish black; tail black, the outer webs tinged with bright blue; lower plumage and under wing-coverts chestnut.

The *female* has the upper plumage olive-brown, tinged with fulvous; the tail is rufous; the forehead and sides of the head are mingled buff and ashy brown; the ear-coverts with the shafts paler; a small spot on the side of the neck blue; the lower plumage is ashy brown, turning to whitish on the abdomen, and there is a patch of white on the front of the neck.

Young birds are dark brown, streaked above and below with fulvous; the outer webs of the wings and tail are tinged with blue from the first, but there is no trace of the blue neck-spot in very young birds. A change takes place first in the abdomen, which turns to the colour of that of the adult; and in males a few blue feathers soon make their appearance on the head and back.

Bill black; legs brown; irides dark brown. (*Jerdon.*)

Length 6 inches, tail 2·7, wing 3·2, tarsus ·85.

The Rufous-bellied Fairy Blue-Chat has been recorded from Arrakan and Tenasserim by Mr. Blyth. Capt. Wardlaw Ramsay procured it in Karennee at 4000 feet elevation. I have examined his specimens and find them agree with Indian examples.

It extends into China and is found in the hills of Eastern Bengal and the Himalayas, where it breeds.

Dr. Jerdon says:—"It frequents thick bushy ground, often near water, is shy and wary, seldom showing itself; but now and then I have seen it seated on a fallen tree or stump, or even a paling by the wayside. It feeds chiefly on insects which it procures on the ground, generally returning to the same perch whence it came; but it also picks insects off the leaves and branches. It is seldom seen high up on trees."

The nest is generally placed in some rocky ledge or crevice or in a decayed stump and is made of moss. The eggs, usually four in number, are, according to Mr. Hume, pale reddish buff, freckled with dingy pink.

280. NILTAVA VIVIDA.

SWINHOE'S RUFOUS-BELLIED BLUE-CHAT.

Cyornis vivida, *Swinh. Ibis*, 1864, p. 363; *David et Oust. Ois. Chine*, p. 117; *Hume & Dav. S. F.* vi. p. 229; *Hume, S. F.* viii. p. 92. *Niltava vivida*, *Sharpe, Cat. Birds B. Mus.* iv. p. 463.

Description.—*Male*. The whole upper plumage, the lesser wing-coverts and the sides of the neck deep purplish blue, turning to ultramarine on the head, rump and upper tail-coverts; the lores, feathers at the base of the upper mandible and in front of the eye black; cheeks and ear-coverts black tinged with blue; chin and throat bluish black; remainder of lower plumage chestnut; central tail-feathers blue, the others black broadly edged externally with blue; lesser and median coverts black washed with blue; quills dark brown, with a narrow external edging of dull blue.

The *female* (Swinhoe's type) has the lores, the feathers at the base of the upper mandible and in front and round the eye mixed ferruginous and grey; the crown is olive-brown washed with blue; the remaining upper plumage and lesser wing-coverts olive-brown, washed in places with a trace of blue. The median and greater coverts and the quills are brown, edged externally with a lighter shade of the same; the tail is brown, washed with ferruginous at the edges of the feathers; the chin and throat are buff, more or less brown at the bases of the feathers; the ear-coverts are like the back, but with no blue tinge; the lower plumage is ashy olive tinged with ochraceous, especially on the centre of the abdomen; the region of the vent is albescent; the under wing-coverts, the axillaries and the under tail-coverts are pure, rather deep, buff.

An immature male has the feathers of the crown, nape and sides of the neck tipped with white.

The legs and feet are dark brown, purplish brown, purplish plumbeous; bill black; irides deep brown. (*Davison*.)

The following are the dimensions of Chinese examples in the Swinhoe collection:—Length about 6 inches, tail 3, wing 3·5, tarsus ·7, bill from gape ·8. Tenasserim birds, according to Mr. Hume, measure:—Length 7 to 8·1 inches, tail 3 to 3·5, wing 3·75 to 4·05.

Had not Mr. Hume assured us that he has compared his Tenasserim specimens with some of Mr. Swinhoe's birds from China, I should have hesitated to unite the two. The disparity in the measurements is very great, greater than is usually the case in birds of this family. I have been unable to examine Tenasserim birds.

Swinhoe's Rufous-bellied Blue-Chat was procured by Mr. Davison on Mooleyit mountain in Tenasserim, where, he states, it was very common.

When alive, this species may easily be confounded with *N. sundara*. It has not been recorded from any other part of Burmah.

It extends into China, where it was first observed by Mr. Swinhoe.

Mr. Davison says:—"This is not quite so much of a Flycatcher as the other *Cyornis*, though it also captures its prey on the wing. I have seen it moving about the tops of the trees by short flights and sitting about like *Niltava grandis*. I never saw a pair together or even two males. I always met with them singly. On Mooleyit they were very common, but I unfortunately mistook them for *Niltava sundara* and only shot a few. Those I dissected had eaten nothing but insects. They were very often in low bushes, but never, so far as I saw, actually descended to the ground. They were not in the least shy or wild, on the contrary very tame. I never heard them utter any note."

281. NILTAVA GRANDIS.

THE LARGE FAIRY BLUE-CHAT.

Chaitaris grandis, *Bl. J. A. S. B.* xi. p. 189. **Niltava grandis**, *Jerd. B. Ind.* i. p. 476; *Hume, Nests and Eggs*, p. 215; *Bl. B. Burm.* p. 102; *Hume, S. F.* v. p. 103; *Hume & Dav. S. F.* vi. p. 232; *Sharpe, Cat. Birds B. Mus.* iv. p. 464; *Hume, S. F.* viii. p. 93.

Description.—*Male*. Forehead, crown, rump, upper tail-coverts, lesser and median wing-coverts and a large spot on each side of the neck brilliant cobalt; back and scapulars purplish blue; central tail-feathers purplish blue, the others brown on the inner webs and blue on the outer; greater coverts and quills black narrowly edged with blue; feathers at base of upper mandible, lores, sides of the head, chin and throat black; remainder of lower plumage black tinged with purple, and the under tail-coverts edged with white.

The *female* has the upper plumage olive-brown tinged with fulvous; the tail chestnut-brown; wings brown edged with rufous-brown; forehead, sides of the head, chin and throat bright fulvous-brown mottled with dusky; lower plumage ochraceous brown tinged with ashy on the abdomen; a spot on either side of the neck brilliant blue.

The *young male* has the plumage dark brown streaked with fulvous everywhere; wings and tail as in the adult, but not so bright.

Irides deep brown; in the male the bill is black; legs and feet black or very dark plumbeous: in the female the bill is brownish black; the legs, feet and claws fleshy pink. (*Davison*.)

Length 8·5 inches, tail 3·6, wing 4·2, tarsus ·9, bill from gape ·1. The female is quite as large as the male.

The Large Fairy Blue-Chat was recorded from Tenasserim many years ago by Mr. Blyth. Mr. Davison observed it in January and February on Mooleyit mountain and its spurs, where he states that it was not uncommon.

This handsome bird extends into the hill-tracts of Eastern Bengal, and is found in the Himalayas from Assam to Nipal.

Mr. Davison remarks of this species :—"Is quite a forest bird; seen only in trees, dry bushwood and even fallen trees, but never, by me, actually on the ground. It occasionally catches insects on the wing, but this is not its common practice. It seems a sluggish bird, sitting for half an hour at a time quite still and silent on a branch. Indeed I never heard its note, but then I never met with it during the breeding-season."

The nest and eggs appear to be very similar to those of *N. sundara*.

282. NILTAVA LEUCOPROCTA.

THE WHITE-TAILED BLUE-CHAT.

Trichastoma leucoproctum, *Tweedd. P. Z. S.* 1877, p. 366; *Hume, S. F.* vii. p. 318.

Niltava leucura, *Tweedd. Ann. Nat. Hist.* ser. 4, xx. p. 95. *Muscitrea cyanea*, *Hume, S. F.* v. p. 101; *Hume & Dav. S. F.* vi. p. 207; *Hume, S. F.* vii. p. 318, viii. p. 91. *Niltava leucoprocta*, *Wardlaw Ramsay, Tweedd. Mem., App.* p. 668.

Description.—*Male.* Nasal plumes and lores black; forehead, crown, nape and a small patch on the wing-coverts, near the edge of the wing, cobalt-blue; the whole upper plumage and wing-coverts deep blue; quills dark brown edged with blue; the four central tail-feathers dull blue, the next pair dark brown edged with blue and with a long streak of white on the outer web; the next two pairs brown on the outer, and almost entirely white on the inner, webs; the outermost pair brown, merely white at the base; sides of the head and neck, chin, throat and breast dull blue; abdomen and sides of the body bluish grey; vent and under tail-coverts pure white; under wing-coverts ashy.

The *female* has the nasal plumes and lores reddish brown; the whole upper plumage olive-brown tinged with rufous; wing-coverts and quills dark brown broadly edged with bright rufous; tail brown tinged with rufous, and with the same distribution of white on it as in the male, but in addition the outermost feathers are broadly edged with white on the inner web; ear-coverts like the back, but with pale shafts; chin, throat, breast and sides of the body rufous-olive; a large patch of white on the fore neck; centre of the abdomen whitish; vent and under tail-coverts pure white; under wing-coverts and axillaries rufous ashy.

Bill black; legs light brown; irides deep brown. (*Limborg*.)

Length 7 inches, tail 3, wing 3·6, tarsus ·9, bill from gape ·1. The female is of the same size.

The descriptions are taken from the types in Capt. Wardlaw Ramsay's museum. They were procured by Mr. Limborg in Tenasserim—the male at Tao at an elevation of 5000 feet, the female on the Mooleyit range at an elevation of 2000 feet.

This species is certainly a *Niltava*. It has a perfectly smooth tarsus, and cannot therefore be admitted into the genus *Muscitrea*, where Mr. Hume wishes to locate it.

The White-tailed Blue-Chat was procured in Tenasserim by Mr. Limborg at the localities mentioned above, and also by Mr. Davison at Meetan on the slopes of Mooleyit mountain. It has not yet been found elsewhere.

According to Mr. Davison this species is eminently a forest bird. It is very restless, moving about through the trees constantly and never descending to the ground. It has the habit of rapidly expanding its tail, thus showing the white on it.

283. NILTAVA MACGRIGORIÆ.

THE SMALL FAIRY BLUE-CHAT.

Phoenicura macgrigoriæ, *Burton, P. Z. S.* 1835, p. 152. *Niltava macgrigoriæ*, *Jerd. B. Ind.* i. p. 475; *Hume, Nests and Eggs*, p. 214; *Wald. in Bl. B. Burm.* p. 102; *Hume & Dav. S. F.* vi. p. 231; *Sharpe, Cat. Birds B. Mus.* iv. p. 465; *Hume, S. F.* viii. p. 93. *Niltava vivida*, *Hume, S. F.* ii. p. 475.

Description.—*Male.* Upper plumage bright purplish blue; the forehead, supercilium, rump, upper tail-coverts and a spot on each side of the neck cobalt; lesser wing-coverts brown, tipped with purplish blue; median coverts entirely purplish blue; greater coverts and quills dark brown, edged with blue; tail with the central feathers entirely blue, the others with the outer webs blue and the inner dark brown; feathers at the base of the upper mandible, in front of and below the eye, and the lores black; cheeks, ear-coverts, chin, throat and breast purple; remainder of the lower plumage ashy, becoming albescent on the abdomen and under tail-coverts; under wing-coverts ashy white.

The *female* has the whole upper plumage olive-brown, tinged with rufous; the tail rufous-brown; wing-coverts and quills brown, edged with rufous-brown; the forehead and sides of the head mixed brown and

fulvous; a spot of brilliant blue on each side of the neck; lower plumage ochraceous buff, paling on the abdomen and under tail-coverts.

The *young males* have the whole upper plumage, sides of the head, throat and breast blackish brown, streaked with fulvous; the remainder of the lower plumage ashy; tail and wings like the adult, but less bright.

Bill black; irides dark brown; feet and claws dusky.

Length 4·8 inches, tail 2·1, wing 2·6, tarsus ·7, bill from gape ·6.

The Small Fairy Blue-Chat was procured by Capt. Wardlaw Ramsay in Karennee, at an elevation of 3000 feet. His specimens, which I have examined, agree exactly with Himalayan examples. Mr. Davison met with one specimen in the hills to the north of Pahpoon. It has not been noted from any other locality in Burmah.

It extends into India, where it is found in the hills of Eastern Bengal, Assam and the Himalayan range of mountains up to Simla.

This species is said to make a globular nest of moss on the ground or in the hole of a decayed tree, and the eggs are said to resemble those of *N. sundara* in colour.

Genus DIGENEA, *Hodgs.*

284. DIGENEA MONILIGER.

THE WHITE-GORGETED FLYCATCHER.

Dimorpha monileger, *Hodgs. P. Z. S.* 1845, p. 26. **Anthipes gularis**, *Bl. J. A. S. B.* xvi. p. 122; *id. Ibis*, 1865, p. 44. **Anthipes moniliger**, *Jerd. B. Ind.* i. p. 477; *Bl. B. Burm.* p. 103; *Hume & Dav. S. F.* vi. p. 232; *Hume, S. F.* viii. p. 93. **Digenea moniliger**, *Sharpe, Cat. Birds B. Mus.* iv. p. 460, pl. xiv. f. 1.

Description.—*Male.* Forehead, lores and a broad but short supercilium, hardly passing beyond the eye, fulvous; upper plumage olive-brown, tinged with rufous on the rump; upper tail-coverts and tail reddish brown; wing-coverts and wings brown, edged with rufous; sides of the head olive-brown; chin and throat white, surrounded by a distinct line of black; lower plumage brown, becoming albescent on the abdomen.

The *female* appears to be the same.

The *young* have the white of the throat mixed with black, and want the black surrounding line.

Bill black; legs and claws pale fleshy; irides dark brown. (*Jerdon.*)

Length 5 inches, tail 2, wing 2·4, tarsus ·8, bill from gape ·6.

Mr. Blyth recorded the present species from Arrakan many years ago,

under the name of *Anthipes gularis*. He also stated that it occurs in Tenasserim. Mr. Davison, however, observed only the next species in that Division. But still Mr. Blyth may be correct; for Capt. Wardlaw Ramsay procured *D. moniliger* in Karennee at an elevation of 5000 feet, and his specimen, which I have examined, does not differ from Himalayan examples.

It ranges through the hills of Eastern Bengal to the Himalayas as far as Nipal.

285. DIGENEA SUBMONILIGER.

HUME'S WHITE-GORGETED FLYCATCHER.

Anthipes submoniliger, *Hume, S. F.* v. p. 105; *Hume & Dav. S. F.* vi. p. 232; *Hume, S. F.* viii. p. 93. ***Digenea submoniliger***, *Sharpe, Cat. Birds B. Mus.* iv. p. 461.

Description.—*Male.* Upper plumage fulvous-brown; the forehead, lores, a broad but short supercilium and a circle of feathers round the eye rich golden fulvous; the sides of the head like the upper plumage; chin and throat white, with a few black feathers on the side of the chin; breast and flanks olive-brown; abdomen, vent and under tail-coverts white; wings and wing-coverts brown, edged with rufous; tail ferruginous.

The bill black, yellowish on lower mandible; legs and feet very pale, probably in life fleshy white. (*Davison.*)

Length 5·2 inches, tail 2, wing 2·45, tarsus ·87, bill from gape ·61.

This Flycatcher is very similar to the preceding species, but differs in a few important respects. The white throat-patch is larger, and instead of being surrounded by a strong black line is merely margined obsoletely with brown; the upper plumage is more rufescent; the forehead, lores, supercilium and the feathers round the eyes are a rich golden fulvous; and the axillaries are pure white.

Hume's White-gorgeted Flycatcher has only been found in Tenasserim, where Mr. Davison met with it about Mooleyit and its spurs, and subsequently at the foot of Nwalabo mountain.

This bird and the preceding one have nothing peculiar in their habits. Nothing is known about their nidification.

Section *OSCINES LATIROSTRES*.

Family HIRUNDINIDÆ.

Genus HIRUNDO, *Linn.*

286. HIRUNDO RUSTICA.

THE COMMON SWALLOW.

Hirundo rustica, *Linn. Syst. Nat.* i. p. 343; *Jerd. B. Ind.* i. p. 157; *Hume, Nests and Eggs*, p. 72; *Bl. B. Burm.* p. 126; *Dresser, Birds Eur.* iii. p. 477, pl.; *Hume, S. F.* iii. p. 41; *Anders. Yunnan Exped.* p. 649; *Legge, Birds Ceylon*, p. 587; *Hume, S. F.* viii. p. 84; *Oates, S. F.* x. p. 183. **Hirundo gutturalis**, *Scopoli, Del. Fl. et Faun. Insub.* ii. p. 96; *Salvad. Ucc. Born.* p. 125; *David et Oust. Ois. Chine*, p. 124; *Hume & Dav. S. F.* vi. p. 41.

Description.—*Male.* Forehead, chin and throat deep ferruginous; whole upper plumage, wing-coverts, sides of the head and neck and a broad band across the chest steely black; wings and tail brown, with a greenish or bluish gloss; the latter with a white spot on the inner webs of all but the central pair of feathers; under surface of plumage varying from white tinged with pink to pale salmon-colour according to the time of the year, the colour being brightest after the spring moult.

The *female* is usually a little paler on the under surface, and the outer tail-feathers are shorter.

In the *nestling* the forehead, chin and throat are very pale rufous; the upper plumage and chest-band brownish black, with a little gloss. During the winter the rufous of the forehead and throat fade to white, the crown of the head wears away to dull brown, and the lustre on the upper plumage and wings gets worn away a good deal. In the spring the young birds moult into full adult plumage.

In what appear to be very old birds the ferruginous of the throat descends more or less on to the pectoral band.

Bill and legs black; iris brown.

Length 7·5 inches; tail 4·2, forked to the extent of 2·6; wing 4·8; tarsus ·4; bill from gape ·6.

The question of the distinctness of the eastern and western forms of the Common Swallow has been discussed at some length by various authors. In my opinion they cannot be separated. The western bird is rather larger perhaps, on the whole, and the pectoral band is better defined; whereas the eastern bird averages rather smaller, and the centre of the pectoral band is commonly mixed up with rufous, but not to such an extent as to cause the band ever to be quite interrupted in the middle.

The Common Swallow is found abundantly over the whole of British

Burmah. Most of the birds seen are immature, and may be observed all the year round. The adults apparently visit Burmah chiefly in the winter, from September to April. I have not seen any indications of its breeding in the Province.

This Swallow is found, according to season, over almost every portion of Europe, Africa and Asia. It appears to breed in considerable quantities in the Himalayas and in the hill-tracts of Eastern Bengal, and Père David states that they breed near Pekin in April.

The Common Swallow, according to my observations, is to be found pretty well all the year through in Burmah. It is always seen in large numbers flying in circles after its insect food, and frequently settling on telegraph-wires, dead trees, bare fields and stalks of grass. On a cold morning they may frequently be observed resting on the sunny bank of some river in immense flocks.

The nest, which is made of mud and lined with feathers, is usually placed under the roof of houses and barns. The eggs are white, speckled with red.

287. HIRUNDO HORREORUM.

THE AMERICAN BARN-SWALLOW.

Hirundo horreorum, Barton, *Fragm. of Nat. Hist.* p. 17; Baird, *Brewer & Ridgw. Birds of N. Amer.* i. p. 339, pl. xvi.; Wald. in *Bl. B. Burm.* p. 127; Hume & Dav. *S. F.* vi. p. 42; Hume, *S. F.* viii. p. 84; Oates, *S. F.* x. p. 183.

Description.—*Male and female.* Like *H. rustica*, but rather more rufous below; the deep ferruginous of the throat spreads downwards, and causes the black collar to be interrupted in the middle for the space of about half or two-thirds of an inch. In *H. rustica*, in some specimens, the ferruginous is in some degree mixed up with the black collar, but never to such an extent as to interrupt it. In a large series of *H. horreorum* from America I cannot find a bird which has the lower plumage white or nearly white, as is so frequently the case in *H. rustica*.

Length about 7 inches, tail 3·4, wing 4·7, tarsus ·42, bill from gape ·65.

I have examined a Swallow shot by Capt. Wardlaw Ramsay at Tonghoo, and it appears to me to be a true *H. horreorum*. This identification had been previously arrived at by Lord Walden (*l. c.*). The lower plumage is much darker than in the Common Swallow, and the collar is broken for about half an inch by a band of ferruginous. Among some Swallows which were shot at Tonghoo by Mr. de Wet, and presented to me by that gentleman, I find another undoubted specimen of this American Swallow.

The American Barn-Swallow is spread over the greater portion of North

America, and appears to be the same familiar bird in that continent that *H. rustica* is in the Old World. It seems to occur often in Eastern Asia. Mr. Dresser mentions having seen a specimen from Lake Baikal, and I have examined one shot by Mr. Swinhoe in Formosa.

288. HIRUNDO TYTLERI.

TYTLER'S SWALLOW.

Hirundo tytleri, *Jerd. B. Ind. App.* iii. p. 870; *Hume, S. F.* iii. p. 41; *Wald. in Bl. B. Burm.* p. 127; *Wardlaw Ramsay, Ibis*, 1877, p. 466; *Hume & Dav. S. F.* vi. p. 41; *Hume, S. F.* viii. p. 84; *Simson, Ibis*, 1882, p. 84.

Description.—*Male and female.* Like *H. rustica*, but with the underparts very dark ferruginous, nearly as dark as the throat. The collar across the fore neck is very narrow and indistinct.

Dimensions about the same as those of *H. rustica*.

This species runs very close to *H. cahirica* of Egypt in the colour of the underparts, but the latter has a very distinct broad collar like *H. rustica*.

Tytler's Swallow visits British Burmah in considerable numbers every winter, but is much more common in some years than in others. Capt. Wardlaw Ramsay remarks that it is common in the plains of Karennee. Dr. Tiraud states that it is not rare in Cochin China. Mr. Simson, who first drew Dr. Jerdon's attention to this species, writes that it visits Dacca in an erratic manner, sometimes abundantly, sometimes in small numbers. Col. Godwin-Austen observed it in the Khasia hills, and it has been procured also at Darjeeling. A specimen collected by Dr. Jerdon in the Khasia hills, and now in the British Museum, is referable to this species.

This Swallow is probably a Central-Asian species, breeding there, and visiting Southern Asia in winter. Its habits are precisely the same as those of *H. rustica*, and the two birds are generally seen together; but the deep rufous colouring of the underparts of *H. tytleri* serves at once to distinguish it.

289. HIRUNDO JAPONICA.

THE JAPANESE STRIPED SWALLOW.

Hirundo japonica, *Temm. et Schleg. Faun. Jap. Aves*, p. 34, t. xi.; *Hume, S. F.* v. p. 260. **Cecropis japonica**, *Swinh. P. Z. S.* 1871, p. 346. **Cecropis striolata** (*Temm.*), *apud Wald. in Bl. B. Burm.* p. 127 (partim); *Hume & Dav. S. F.* vi p. 44.

Description.—*Male and female.* Forehead, crown, back, scapulars and lesser wing-coverts glossy steel-black; lores ashy; a spot in front of the eye black; a very narrow supercilium and a broad patch behind and above the ear-coverts chestnut; these patches *narrowly and interruptedly* connected over the nape. Ear-coverts, cheeks and whole lower plumage white, with a tinge of rufous, and *broadly* streaked everywhere with dark brown; rump chestnut, the shafts of the feathers conspicuously black; upper tail-coverts black; under tail-coverts white at base, black at the end, the black portion being about an inch in length; greater wing-coverts, wings and tail black with a bluish gloss.

Length about 7 inches; tail 4·1, forked to the extent of 2·2; wing 4·7; tarsus ·6; bill from gape ·55.

This Swallow may be recognized by the combination of the following characters:—the rump-band is about 1·1 inch long, with distinct black shafts; the stripes on the lower plumage are very broad, almost as broad as the tarsus is thick; the under tail-coverts are black for a length of about one inch; the wing is 4·7 inches long; the patch on the side of the head is bright chestnut; and the collar on the nape is interrupted, consisting merely of a few rufous streaks.

A specimen shot by Capt. Wardlaw Ramsay on the Karin hills east of Tonghoo is referable to this species. I have seen no other example from Burmah. There are skins in the British Museum and in the Seebohm collection from Chefoo, Amoy and Formosa in China, shot from February to May, and there is also one skin from the island of Flores. It also occurs in Japan, from which country it was first described. This species and others of this section of Swallows have been so confounded together by various authors that it is impossible to give their geographical distribution without an actual examination of skins.

Messrs. Blakiston and Pryer in their 'Catalogue of the Birds of Japan' admit only one species of Striped Swallow, and enter it under the name of *Cecropis erythropygia*. There can be little doubt that the species intended is *H. japonica*. They state that it builds a long bottle-shaped nest under the eaves of buildings, and that the eggs are six in number and white.

290. *HIRUNDO NIPALENSIS*.

THE NIPAL STRIPED SWALLOW.

Hirundo nipalensis, *Hodgs. J. A. S. B.* v. p. 780; *Hume, S. F.* v. p. 262; *Hume & Dav. S. F.* vi. p. 44; *Hume, S. F.* viii. p. 84; *Scully, S. F.* viii. p. 233; *Oates, S. F.* x. p. 184. *Lillia daurica* (*Linn.*), *Hume, Nests and Eggs*, p. 78. *Cecropis nipalensis*, *Hume, S. F.* iii. p. 42. *Cecropis erythropygia*, *apud Bl. B. Burm.* p. 127.

Description.—*Male and female.* Very similar to *H. japonica* in general appearance, but differing in the following respects:—the rump is not striated, a few of the longer feathers only having darker shafts, but these are inconspicuous and fail to catch the eye readily; the striations on the lower surface are rather broad, but not so broad as in *H. japonica*, and the black on the under tail-coverts is only $\cdot 8$ inch in length; the length of the wing varies from 4.5 to 4.8; the other dimensions are the same as in *H. japonica*.

The Nipal Striped Swallow is found in winter over the whole of British Burmah, and is the only Striped Swallow which is common. It has the habits of *H. rustica*, flying about and resting on trees &c. in the same manner.

In the winter it is spread over the Indo-Burmese countries and the peninsula of India, and probably extends to China. Dr. Tiraud refers, but with doubt, the Striped Swallow of Cochin China to the present species. It summers in the Himalayas, and breeds in those mountains. The nest is bottle-shaped, made of mud and lined with feathers and it is placed under the eaves and in the verandahs of empty houses. At times it resorts for breeding-purposes to high cliffs and ruined buildings. The eggs are generally three in number and white.

There are many reputed species of Striped Swallows. These birds are, however, little understood at present, and probably the number of species will be considerably reduced on further investigation. The species next treated of is somewhat doubtful, but I am not in a position to suppress it. As far as my present information goes, there are grounds for ranking it as a good species, and I accordingly insert it.

291. HIRUNDO ARCTIVITTA.

SWINHOE'S STREAKED SWALLOW.

Cecropis arctivitta, Swinhoe, *P. Z. S.* 1871, p. 346. *Lillia arctivitta*, Hume, *S. F.* v. pp. 261, 266.

Description.—*Male and female.* In general appearance similar to *H. japonica*, from which, however, it may be distinguished by the following characters :—a narrower rump-band, only about .8 inch in length, with the shafts inconspicuously dusky ; the striations on the lower plumage distinct but much narrower, hardly broader than the shaft itself ; the black on the under tail-coverts shorter, measuring only .7 inch in length ; and the chestnut on the head duller.

Dimensions the same as those of *H. japonica*.

It is just possible that this species may be only the young of *H. japonica*, but from the specimens I have seen I am inclined to think it a distinct species. Mr. Swinhoe states that this Swallow breeds near Pekin, and he is not likely therefore to have overlooked the adult birds.

Capt. Wardlaw Ramsay procured one specimen in the Karin hills east of Tonghoo, and I have not seen specimens from any other locality in British Burmah. Mr. Swinhoe says it is locally distributed throughout China as far as Pekin, and there are specimens of this species in the Swinhoe collection shot at Pekin in August and September.

Genus UROMITRUS, Bonap.

292. UROMITRUS FILIFERUS.

THE WIRE-TAILED SWALLOW.

Hirundo filifera, Steph. *Gen. Zool.* xiii. pt. ii. p. 78 ; Jerd. *B. Ind.* i. p. 159 ; Wald. in *Bl. B. Burm.* p. 127 ; Aitken, *S. F.* iii. p. 212 ; Wardlaw Ramsay, *Ibis*, 1877, p. 466 ; Hume & Dav. *S. F.* vi. p. 43 ; Anders. *Yunnan Exped.* p. 650 ; Hume, *S. F.* viii. p. 84 ; Oates, *S. F.* x. p. 184. *Uromitus filifera*, Hume, *Nests and Eggs*, p. 75.

Description.—*Male and female.* Forehead and crown deep chestnut ; the whole upper plumage, wings, tail and ear-coverts glossy steel-blue ; the four outer pairs of tail-feathers with an oval spot of white on the inner webs ; cheeks, sides of the neck and the whole lower plumage white.

Length to end of penultimate tail-feathers 5 inches, tail to end of penultimate feathers 1.7, wing 4.8, tarsus .42, bill from gape .53. The outer tail-feathers are produced in a wire-like form as much as 6 inches

beyond the penultimate ones. The female has these appendages much shorter.

The Wire-tailed Swallow appears to be rather an uncommon bird in Burmah. I have never met with it myself, but I have seen specimens in the Phayre Museum in Rangoon which were shot near this town. Capt. Wardlaw Ramsay procured it at Tonghoo. Mr. Davison met with it in Tenasserim only at Pahpoon, but Capt. Bingham observed it in the Thoungyeen valley.

Dr. Anderson got this Swallow near Bhamo, and it is probably found throughout the Indo-Burmese countries. It appears to be spread over the greater portion of the Indian peninsula and the Himalaya mountains up to an elevation of about 5000 feet.

This beautiful Swallow seems to be found in much the same sort of localities as the Common Swallow, but it is perhaps fonder of water. It breeds both in the plains and hills of India, placing its nest, which is made of mud, under bridges and culverts, and less frequently in out-buildings. The eggs, usually three in number, are white speckled with reddish.

Genus HYPUROLEPIS, *Gould*.

293. HYPUROLEPIS JAVANICA.

THE TROPICAL HOUSE-SWALLOW.

Hirundo javanica, *Sparrm. Mus. Carls. fasc. iv. t. 100*; *Salvad. Ucc. Born. p. 126*; *Bourdillon, S. F. iv. p. 374*; *Fairbank, S. F. v. p. 392*; *Hume & Dav. S. F. vi. p. 43*; *Hume, S. F. viii. p. 84*; *Legge, Birds Ceylon, p. 597*; *Hume, S. F. ix. p. 120*. **Hirundo domicola**, *Jerd. Madr. Journ. xiii. p. 173*; *id. B. Ind. i. p. 158*. **Hypurolepis domicola**, *Hume, Nests and Eggs, p. 73*; *id. S. F. ii. p. 155*.

Description.—*Male and female.* A broad band on the forehead, the chin, throat, upper breast, cheeks and ear-coverts deep ferruginous; lores dusky; upper plumage glossy black; wings and tail dark brown, slightly glossy on the outer webs; the tail with an oval spot on all the inner webs of the feathers except those of the central pair; lower plumage pale ashy, albescent on the abdomen; under tail-coverts ashy, the feathers with white tips and subterminal patches of black.

Length 5 inches; tail 2·1, depth of fork ·3; wing 4·2; tarsus ·4; bill from gape ·65.

The Tropical House-Swallow was procured by Mr. Davison at Mergui

in Tenasserim in June. He states his belief that they were then migrating ; but I think this to be improbable, for Mr. Theobald found these Swallows breeding in Tenasserim in April, and at other places where this bird occurs it appears to be a resident species.

This Swallow, which is one of very wide range, will probably be observed in other parts of Burmah. It is a common and well-known bird in the south of India and in Ceylon, and it is found in the Malay peninsula, Java, Sumatra, Borneo, the Philippine Islands, Celebes and some of the further islands.

The Tropical House-Swallow, or the Neilgherry House-Swallow as Dr. Jerdon terms it, appears to be as familiar in the localities it is met with as the Common Swallow is in Europe. It makes its nest in the verandahs of bungalows and in outhouses, occasionally in a cave or on the face of a well-sheltered rock. The nests which Mr. Theobald found in Tenasserim were attached to the underparts of snags about 4 feet above the water, but I should imagine this to be an unusual position for the nests ; they are constructed of mud, cup-like in shape and lined with feathers. The eggs are usually three in number, white speckled with reddish.

Genus COTILE, *Boie*.

294. COTILE SINENSIS.

THE INDIAN SAND-MARTIN.

Hirundo chinensis, *Gray in Hardw. Ill. Ind. Orn.* pl. 35. fig. 3. **Cotyle sinensis**, *Jerd. B. Ind.* i. p. 164 ; *Bl. & Wald. B. Burm.* p. 127 ; *David et Oust. Ois. Chine*, p. 128 ; *Anders. Yunnan Exped.* p. 651 ; *Hume & Dav. S. F.* vi. p. 45 ; *Hume, S. F.* viii. p. 84 ; *Scully, S. F.* viii. p. 234. **Cotile sinensis**, *Hume, S. F.* i. p. 164 ; *id. Nests and Eggs*, p. 82. **Cotile obscurior**, *Hume, S. F.* iii. p. 43.

Description.—*Male and female.* Upper plumage greyish brown, most of the feathers, especially those of the tail-coverts, margined with paler brown or with whitish ; wings and tail darker brown ; chin, throat, breast, sides of the head and neck pale grey ; abdomen, vent and under tail-coverts white.

Iris brown ; bill black ; legs dark brown.

Length 4·2 inches, tail 1·8, wing 3·4, tarsus ·38, bill from gape ·45.

The Indian Sand-Martin is common in Arrakan and Pegu in the neighbourhood of all the larger rivers. Mr. Davison states that it is rare in Tenasserim and confined to the northern portion of the Division, and Capt. Bingham has not observed it in the Thoungyeen valley. Wherever found, however, it appears to be a constant resident.

Dr. Tiraud states that it is common in Cochin China, and Mr. Swinhoe found it in South China and Formosa. It is spread over the Indo-Burmese countries and the greater portion of India, becoming rare in the south of that peninsula.

This little Sand-Martin is a very common bird at all seasons of the year. It is mostly found on and near large rivers where the banks are steep, but not unfrequently it may be observed far inland, hawking after insects like ordinary Swallows. It lays its eggs in a hole in a river-bank, the tunnel leading to the nest varying from one to four feet in length. The entrance to the tunnel and the passage itself is very small, but the egg-chamber is a roomy hollow. The eggs, which are four or five in number, are laid upon a pad of grass and are white. The excavation of the nest-holes is commenced in Burmah about November. These birds usually breed in large colonies, a firm and nearly perpendicular bank being selected for the purpose.

295. COTILE RIPARIA.

THE EUROPEAN SAND-MARTIN.

Hirundo riparia, *Linn. Syst. Nat.* i. p. 344. **Cotyle riparia**, *Jerd. B. Ind.* i. p. 163; *David et Oust. Ois. Chine*, p. 128; *Hume & Dav. S. F.* vi. p. 44; *Hume, S. F.* viii. p. 84. **Cotile riparia**, *Dresser, Birds Eur.* iii. p. 505, pl.; *Oates, S. F.* x. p. 184.

Description.—*Male and female.* The whole upper plumage, tail, sides of the head and neck and a broad pectoral band greyish brown; the feathers of the rump and tail narrowly margined paler; wings and coverts dark brown; chin, throat, abdomen, vent and under tail-coverts white.

Bill black; iris brown; legs dark brown.

Length 5 inches; tail 2·3, forked to the extent of ·4; wing 4; tarsus ·45; bill from gape ·5.

The European Sand-Martin is a somewhat rare winter visitor to Pegu and Tenasserim, and it probably also occurs in Arrakan. I observed it in the Pegu river on several occasions, and Mr. Davison found it on the Sittang and Salween rivers in January and February.

This Sand-Martin has a very wide range. In winter it is found sparingly over the greater part of India, and ranges westwards into Europe, where it also spends the summer. The birds which in winter are found in Southern Asia appear to migrate in summer into China and Siberia. Père David states that it breeds in South China, and Mr. Swinhoe observes that it is found near Pekin in summer. According to Mr. Seebohm, it arrived on the Arctic circle in June, but he did not see it further north

than lat. 67°. Both on the banks of the Ob and the Yen-e-say' large colonies of these birds were frequent.

The habits of this species are similar to those of *C. sinensis*, and it nests in precisely the same manner in the banks of rivers.

Mr. Davison observed on Mooleyit mountain in Tenasserim a species of *Ptyonoprogne*, but he was unable to secure specimens. The birds of this genus resemble *Cotile* in being generally of a brownish colour, but they differ conspicuously in having white spots on the tail; they frequent cliffs and precipices.

Genus CHELIDON, Boie.

296. CHELIDON LAGOPODA.

THE SIBERIAN HOUSE-MARTIN.

Hirundo lagopoda, Pall. Zoogr. Rosso-Asiat. i. p. 532. **Chelidon urbica**, apud Tickell, J. A. S. B. xxiv. p. 277 (footnote); Bl. B. Burm. p. 127; Hume & Dav. S. F. vi. p. 45. **Chelidon whiteleyi**, Swinh. P. Z. S. 1862, p. 320; id. Ibis, 1874, pl. vii. fig. 2. **Chelidon lagopoda**, David et Oust. Ois. Chine, p. 130; Seebohm, Ibis, 1879, p. 17.

Description.—*Male and female.* Forehead, crown, nape, back, scapulars and lesser wing-coverts glossy steel-black; rump and upper tail-coverts white, the shafts dark; tail, wings and greater coverts brown; lores, the feathers under the eye and above the ear-coverts dull black; cheeks, lower ear-coverts and all the lower plumage pure white; under wing-coverts and axillaries dark smoky brown.

Length nearly 5 inches, tail 2·3, wing about 4·5 (the only two specimens I have been able to examine had the wings imperfect), bill from gape ·45.

The late Colonel Tickell states (*l. c.*) that *C. urbica* occurs at Moulmein in great numbers. When he made this statement it was not generally known that there was an allied species common in Eastern Asia. I think it very probable that this allied species, *C. lagopoda*, and not *C. urbica*, was the one which Colonel Tickell observed at Moulmein. The latter is more of a European bird, very rarely observed in India and very unlikely to be found in Burmah; whereas *C. lagopoda* is a common Chinese bird and is consequently likely to visit Burmah. As one species of House-Martin certainly inhabits Burmah, according to Col. Tickell, I prefer to insert the Siberian bird in my work rather than the European one.

C. urbica may be recognized by its upper tail-coverts, which are entirely

black, and by the under wing-coverts and axillaries, which are grey. *C. blakistoni*, so far as is known, is a purely Japanese species, and has the upper tail-coverts black like *C. urbica*, the whole lower plumage light brown, not white, and the under wing-coverts and axillaries nearly black. *C. cashmeriensis*, Gould, is very probably only *C. lagopoda*, but I have not instituted a comparison between them.

The Siberian House-Martin is found in summer in Siberia and Kamtschatka; and, according to Père David, it breeds in the high rocks of the mountains west of Pekin, in Moupin and in the Central Provinces of China. Severtzoff observed it in Turkestan on passage. It is not known where it winters, but it must come south in order to find its insect food, and it probably ranges at that season of the year over South China and the Siamese countries, visiting Burmah at intervals.

Mr. Seebohm has an interesting note on this little-known species. He says:—"This bird was the only *Chelidon* which I observed on the Yen-e-say'. Several pairs arrived on the Arctic circle on the 11th of June, and were soon busy hawking for flies and examining their old nests. In the village of Koo-ray'-i-ka, opposite the mouth of the river of that name, they swarmed in thousands. The nest exactly resembles that of our House-Martin; but the birds seemed to be very capricious in selecting a house where they might trust their young. One house in particular seemed to be the favourite; and here the eaves were crowded with rows of nests, in some places three or four deep. The eggs are, if any thing, larger than those of our bird, but also pure white. I observed this bird up to lat. 69°, where a few pairs were breeding. I could not perceive any difference in the habits or notes of these birds and those of our own species. On the return journey I noticed a colony, doubtless of these birds, which had built their nests against the limestone cliffs of the Kah'-nin Pass, as our bird frequently does in the limestone districts of Yorkshire, the Parnassus, &c. As I passed through Yen-e-saisk' in the middle of August, the House-Martins were swarming on the church-towers, preparing for departure on their autumn migration."

Section *OSCINES TENUIROSTRES*.

Family NECTARINIIDÆ.

Subfamily NECTARINIINÆ.

Genus *ÆTHOPYGA*, *Cabanis*.297. *ÆTHOPYGA SANGUINIPECTUS*.

THE BURMESE YELLOW-BACKED SUN-BIRD.

Æthopyga sanguinipectus, *Wald. Ann. Nat. Hist.* ser. 4, xv. p. 400; *Hume, S. F.* iii. p. 402; *Wald. in Bl. B. Burm.* p. 142; *Hume & Dav. S. F.* vi. p. 182; *Hume, S. F.* viii. p. 89; *Shelley, Mon. Nect.* p. 37, pl. 12. *Æthopyga waldeni*, *Hume, S. F.* v. p. 51.

Description.—*Male*. Forehead, crown, nape and the hind neck purplish steel-blue; sides of the head dull black; sides of the neck, back and the shorter scapulars red; lesser wing-coverts, the longer scapulars and a band on the back below and next to the red deep black; next this black band another yellow one; remainder of the rump, upper tail-coverts and the basal three quarters of the central tail-feathers steel-blue; remainder of the tail, the median and greater wing-coverts and the quills blackish brown; chin black; throat purplish steel-blue; upper breast black, the lateral feathers tipped with red; remainder of the lower plumage pale yellow, the breast streaked with scarlet; under wing-coverts and axillaries yellowish white.

The *female* is thus described by Capt. Shelley :—"Upper half of the head and back of the neck olive-shaded ashy brown, with the centres of the feathers rather darker; back, scapulars, least and median series of wing-coverts, and the upper tail-coverts olive-green; remainder of the wings dark brown, with the greater series of coverts and the quills broadly edged with yellowish olive; across the lower back a band of very pale olive-tinted yellow; tail brownish black, the feathers edged with olive and most of them with whitish tips, broadest on the outer ones; on the sides of the head a small black patch in front of the eyes, beneath which is a nearly white loral band; chin and throat pale dusky olive; chest more olive; lower breast, abdomen and under tail-coverts very pale olive-yellow; thighs brown; flanks nearly white; under surface of the wings dark brown, with the inner margins of the quills and the coverts white, the latter tinted with yellow on the edge of the wing."

Legs and feet very dark reddish or purplish brown; bill black; irides very deep brown. (*Davison*.)

Length of male 5·5 inches, tail 2·7, wing 2·1, tarsus ·5, bill from gape ·8. The female is smaller; wing 1·8 inches, tail 1·1.

The description of the male is taken from birds procured in Karennee by Capt. Wardlaw Ramsay. I have not been able to examine a female specimen.

Æ. saturata, a near ally of the present species, may be recognized by its black breast. The females of the two species are probably undistinguishable from each other.

The Burmese Yellow-backed Sun-bird was discovered by Capt. Wardlaw Ramsay on the Karennee hills. He procured specimens at elevations varying from 2500 to 3000 feet. Mr. Davison subsequently observed it on the higher portions of Mooleyit mountain in Tenasserim. It has not yet been procured elsewhere in Burmah.

According to Mr. Davison the habits of this bird are very similar to those of the other birds of the genus.

298. *ÆTHOPYGA DABRYI*.

DABRY'S SCARLET SUN-BIRD.

Nectarinia dabryi, *J. Verr. Rev. et Mag. Zool.* 1867, p. 173, pl. 15. *Æthopyga debrii*, *Wald. Ibis*, 1870, p. 35; *Sclater, Ibis*, 1870, p. 296; *Wald. in Bl. B. Burm.* p. 141. *Æthopyga dabryi*, *David et Oust. Ois. Chine*, p. 80, pl. 11; *Shelley, Mon. Nect.* pp. xxi, 39, pl. 13; *Anders. Yunnan Exped.* p. 663; *Hume & Dav. S. F.* vi. p. 180; *Hume, S. F.* viii. p. 89.

Description.—*Male.* Forehead, crown, chin, throat and ear-coverts metallic purple or lilac according to the light; the nape, sides of the crown, feathers round the eye, sides of the neck, back, scapulars and lesser wing-coverts deep crimson; rump bright yellow; upper tail-coverts and basal two thirds of the central tail-feathers metallic purple; remainder of the tail black, the outer three pairs of feathers tipped with dull white; greater coverts and quills brown, edged with yellowish green; breast scarlet with a patch of metallic purple on either side; abdomen, vent, sides of the body and under tail-coverts yellow, tinged with dusky; under wing-coverts and axillaries whitish.

The *female* has the upper plumage olive-green, the feathers of the crown with dark brown centres; rump pale yellow; tail brown, edged narrowly with olive-green and the three outer pairs of feathers tipped with dull whitish; quills brown, edged with dull greenish yellow; the whole lower plumage dull pale green.

Legs and feet dark horny brown; bill dusky black; irides deep brown. (*Davison*.) Iris, bill and legs brown. (*Wardlaw Ramsay*.)

Length 5·7 inches, tail 2·6, wing 2·2, tarsus ·55, bill from gape ·7. The

female is smaller; length 3·5 inches, tail 1·3, wing 1·75, tarsus ·55, bill from gape ·7.

The description of the male is taken from a bird procured by Dr. Anderson in the Kachyin hills east of Bhamo; that of the female from a bird shot in Karennee by Capt. Wardlaw Ramsay.

This species and the next are very closely allied. The male of *Æ. gouldiæ* may, however, be recognized by its yellow breast, but the females of the two species are very similar and perhaps inseparable.

Dabry's Scarlet Sun-bird was obtained by Capt. Wardlaw Ramsay in Karennee at an elevation of 4000 feet, and Mr. Davison also procured it on the higher portions of Mooleyit in Tenasserim.

It has been observed in China in the provinces of Sechuen and Moupin, and Dr. Anderson got it on the hills east of Bhamo on the borders of China.

Mr. Davison remarks of this species:—"It was frequenting a number of large flowering forest-trees at that time covered with masses of red bell-like blossoms. Its habits were precisely those of all the *Æthopygæ*. Even at Mooleyit it was decidedly rare, and I myself only succeeded in shooting four males and one female; but I saw perhaps a dozen more. They were very difficult to procure, because they did not permanently hang about the trees on whose nectar they were feeding, but suddenly emerging from the surrounding deep forest, in which it was quite impossible to see or find them, would appear about one of the blossoming trees, hover about it for a few seconds and then dart away."

299. *ÆTHOPYGA GOULDIÆ*.

MRS. GOULD'S SUN-BIRD.

Cinnyris gouldiæ, Vigors, *P. Z. S.* 1831, p. 44. *Æthopyga gouldiæ*, Jerd. *B. Ind.* i. p. 364; *Stoliczka*, *J. A. S. B.* xxxvii. pt. ii. p. 23; *Wald. Ibis*, 1870, p. 35; *Bl. B. Burm.* p. 141; *Shelley*, *Mon. Nect.* pp. xxii, 41, pl. 14; *Hume*, *S. F.* viii. p. 89.

Description.—*Male.* Forehead, crown, chin, throat and the posterior part of the ear-coverts coppery red or burnished purple according to the light; lores blackish; a line of feathers over the lores, cheeks, sides of the head and neck, lesser wing-coverts, back and scapulars crimson; rump yellow; upper tail-coverts rich purple or violet; basal three quarters of the centre tail-feathers bright purple, terminal quarter brown; the other rectrices brown, tinged with purple on the outer web and tipped with whitish; greater coverts and quills dark brown, edged with yellowish brown; lower plumage bright yellow; the breast more or less streaked with crimson; the sides of the breast crimson, with a patch of bright purple; under wing-coverts and axillaries pale yellow.

The *female*, according to Capt. Shelley, is similar to the female of *Æ. dabryi*. I have not been able to examine a specimen.

Bill black; legs brown; irides brown. (*Jerdon*.)

Length 6 inches, tail 3·2, wing 2·2, tarsus ·55, bill from gape ·7.

Mrs. Gould's Sun-bird is stated by Mr. Blyth to have occurred in Arrakan.

It is found in the hill-tracts of Eastern Bengal, Tipperah and Chittagong and along the whole range of the Himalayas as far as the Sutlej river, migrating from a higher to a lower elevation in winter. In summer it has been found at an elevation of as much as 10,000 feet near Chini.

In habits this species does not appear to differ in any important respect from the next. Its nest has not yet been found.

300. *ÆTHOPYGA CARA*.

THE TENASSERIM YELLOW-BACKED SUN-BIRD.

Æthopyga miles (*Hodgs.*), *Wald. P. Z. S.* 1866, p. 541; *Beavan, Ibis*, 1869, p. 419; *Wald. Ibis*, 1870, p. 32 (partim); *Bl. & Wald. B. Burm.* p. 141. *Æthopyga cara*, *Hume, S. F.* ii. p. 473 (footnote); *Hume & Dav. S. F.* vi. p. 179; *Shelley, Mon. Nect.* pp. xxiii, 63, pl. 21; *Hume, S. F.* viii. p. 89; *Bingham, S. F.* ix. p. 170; *Oates, S. F.* x. p. 197.

Description.—*Male*. Forehead and crown violet-green; lores brown; nape, hind neck, back, scapulars, sides of the head and neck, chin, throat, breast, lesser and median wing-coverts deep crimson; rump yellow; upper tail-coverts metallic green, shaded with violet; tail black, edged with metallic violet; two narrow streaks, one on either side the throat, metallic violet; remainder of lower surface ashy green; greater coverts and quills brown, edged with olive-green.

The *female* has the upper plumage olive-green; the centres of the feathers of the crown brown; coverts and quills brown, edged with olive-yellow; tail blackish, the edges olive-yellow and the tips whitish; lower plumage and sides of the head dull olive-green.

Legs and feet dark chocolate-brown; upper mandible black; lower mandible pale reddish brown; iris dark brown; mouth pale salmon-colour.

Length 5 inches, tail 2·1, wing 2·2, tarsus ·5, bill from gape ·75. The female is smaller: length 4·3, tail 1·5, wing 2.

Æ. siparaja, from the Malay peninsula, is a closely allied species, the male differing from the male of *Æ. cara* principally in having black margins to the inner webs of the feathers of the moustachial streaks, these margins forming well-defined inner streaks. *Æ. seheriæ*, from the Himalayas, differs chiefly in having the crown, upper tail-coverts and tail glossed

with green instead of violet. There are several other allied species, but none of them are likely to occur in Burmah.

The Tenasserim Yellow-backed Sun-bird occurs commonly throughout Southern Pegu from Rangoon up to Pegu, and still further north of this town well up in the hills. I have also procured it on the banks of the Sittang river from its mouth up to Shwaygheen. Colonel Lloyd appears to have met with it at Tonghoo. Mr. Davison found it generally distributed in Tenasserim as far south as Tenasserim Town, and Capt. Bingham encountered it in the Thoungyeen valley. It is not known whether it occurs in Arrakan. The Himalayan species, *Æ. seheriæ*, may probably replace it in that Division.

This beautiful bird, which is tolerably common, frequents flowering trees and shrubs. It subsists chiefly on the nectar or honey found in flowers, but it also seems to consume a considerable number of minute insects. It may frequently be seen searching the leaves of parasitic plants, and as these, as a rule, have no flowers, the bird must obviously be looking for insects. I believe that all the Sun-birds feed on insects more than is generally supposed. While feeding, these birds utter a few low twittering notes. The nest of this species has not yet been discovered, but it will probably be found to be of the same character as that of *Cinnyris flammixillaris* described below.

Genus CHALCOSTETHA, *Cabanis*.

301. CHALCOSTETHA PECTORALIS.

MACKLOT'S SUN-BIRD.

Nectarinia pectoralis*, *Temm. Pl. Col.* 138. fig. 3. **Nectarinia calcostetha**, *Jard. Mon. Sun-birds*, p. 263. **Nectarinia insignis**, *Jard. Mon. Sun-birds*, p. 274; *Gould, P. Z. S.* 1865, p. 663 (desc. orig.). **Cinnyris macklotii**, *Bonap. Consp. Av.* i. p. 408. **Chalcostetha insignis**, *Wald. Ibis*, 1870, p. 44; *Salvad. Ucc. Born.* p. 177; *Hume, S. F.* iii. p. 319; *Shelley, Mon. Nect.* pp. xxv, 87, pl. 30; *Hume & Dav. S. F.* vi. p. 183; *Hume, S. F.* viii. p. 89. **Chalcostetha insperata**, *Hume, S. F.* iii. p. 320 (footnote).

Description.—*Male*. Forehead and crown metallic emerald-green; sides of the head and neck, nape and upper back dull black; lesser and median coverts, scapulars, lower back, rump and upper tail-coverts metallic green or purple, according to the light; tail blue, edged with metallic green; greater coverts and quills dark brown, slightly edged with metallic green

* *Nectarinia pectoralis*, *Horsf.*, refers to a bird of another genus, and therefore *Temminck's* name for the present species is not invalidated by it.

or purple ; chin, throat and upper breast brilliant metallic golden bronze ; a narrow band bordering this and the lower breast metallic violet-purple ; axillary tufts yellow ; remainder of the lower plumage black.

The *female* has the forehead, crown and nape brown, edged with grey ; upper plumage dull olive-green ; quills brown, edged with the colour of the back ; tail black, all but the central feathers broadly tipped with white ; the feathers round the eye, the sides of the head, chin and throat pale grey ; breast, abdomen and sides of the body yellow ; vent and under tail-coverts pale yellowish white.

Legs and feet black or bluish black ; bill black ; irides dark brown. (*Davison.*)

Length 5·5 inches, tail 2·1, wing 2·3, tarsus ·55, bill from gape ·8. The female is rather smaller.

Macklot's Sun-bird was observed by Mr. Davison as a rare straggler in the extreme southern point of Tenasserim at Malewoon, and at Patoe Island further north.

It extends down the Malay peninsula, and is found in Sumatra, Java, Borneo, Celebes and the Philippine Islands. Dr. Tiraud procured one specimen in Cochin China.

This species, according to Mr. Davison, is particularly addicted to the flowers of cocoanut-trees and mangroves. He observes that it has much the same habits as *Æthopyga cara*.

Genus CINNYRIS, *Cuvier*.

302. CINNYRIS HASSELTII*.

VAN HASSELT'S SUN-BIRD.

Certhia brasiliانا, *Gm. Syst. Nat.* i. p. 474. *Certhia sperata*, *Raffl. Trans. Linn. Soc.* xiii. p. 298. *Nectarinia hasseltii*, *Temminck. Pl. Col.* 376. f. 3. *Nectarinia phayrei*, *Bl. J. A. S. B.* xii. p. 1008, xiv. p. 557. *Leptocoma brasiliانا*, *Wald. P. Z. S.* 1866, p. 543 ; *Hume & Dav. S. F.* vi. p. 184. *Nectarophila brasiliانا*, *Wald. Ibis*, 1870, p. 41. *Nectarophila hasseltii*, *Salvad. Ucc. Born.* p. 177 ; *Bl. B. Burm.* p. 142. *Cinnyris hasselti*, *Shelley, Mon. Nect.* pp. xxxi, 127, pl. 42 ; *Oates, S. F.* x. p. 197. *Cinnyris brasiliانا*, *Hume, S. F.* viii. p. 90.

Description.—*Male*. Forehead and crown shining golden green ; lores, cheeks, ear-coverts, the neck above and at the sides, the upper back, tertiaries and all the wing-coverts except those near the edge of the wing

* Gmelin's name gives such a very erroneous impression of this bird's habitat, that I think it may be very justly superseded.

deep black; the wing-coverts near the edge of the wing, scapulars, lower back, rump and upper tail-coverts brilliant purplish blue; primaries and secondaries brownish black; under wing-coverts deep black; throat and fore neck brilliant amethystine-purple; breast and upper abdomen rich red; lower abdomen, sides of the body, vent and under tail-coverts dull greyish black; tail brilliant purplish black.

Female. Forehead and crown grey, the feathers dark-centred and edged with green; remainder of the upper plumage with the lesser wing-coverts and scapulars pale greenish yellow, the feathers of the rump, upper tail-coverts, lesser wing-coverts and scapulars darker centred; greater coverts dark brown edged with greenish; quills dark brown edged exteriorly with cinnamon-yellow; throat yellowish white; the feathers round the eye, the lores, ear-coverts, sides of the neck and the upper breast dull greenish yellow; lower breast, abdomen, vent and sides of the body pure yellow; under wing-coverts yellowish white; under tail-coverts paler; tail black, edged near the base with cinnamon and tipped with white, the outermost pair being nearly entirely whitish.

Bill dark brown; the gape and mouth cinnamon-red; iris dark hazel; eyelids plumbeous; legs black; claws brown.

Length 4 inches, tail 1·2, wing 1·95, tarsus ·45, bill from gape ·65. The female is smaller.

Van Hasselt's Sun-bird seems to be sparingly distributed over most parts of British Burmah. Mr. Blyth received specimens collected in Arrakan. I have met with it not unfrequently in Pegu in the immediate neighbourhood of the town of that name and also at Kyeikpadein. I also found it in the hills north of Pegu Town for a distance of ten or twenty miles, and it is probably spread over the whole range of the Pegu hills. Mr. Davison observed it in Tenasserim from Moulmein down to Malewoon, and it became commoner as he proceeded south.

To the north of Burmah it ranges as far as Tipperah, and to the south down the Malay peninsula into the islands of Sumatra, Java and Borneo.

This species is found chiefly in open jungle and gardens, wandering about from shrub to shrub. Those I had the opportunity of observing were engaged in searching the leaves for insects. The nest of this bird, as described by Capt. Shelley, is so similar to that of *C. flammixillaris* that no separate description appears necessary. The nest of this bird does not, however, appear to have a portico over the entrance-hole.

303. CINNYRIS FLAMMAXILLARIS.

THE BURMESE YELLOW-BREASTED SUN-BIRD.

Nectarinia jugularis, *Bl. J. A. S. B.* xii. p. 979. *Nectarinia flammaxillaris*, *Bl. J. A. S. B.* xiv. p. 557. *Arachnechthra flammaxillaris*, *Wald. P. Z. S.* 1866, p. 541; *id. Ibis*, 1870, p. 24; *Hume, Nests and Eggs*, p. 154; *Bl. B. Burm.* p. 141; *Armstrong, S. F.* iv. p. 313; *Oates, S. F.* v. p. 148, vii. p. 40; *Hume & Dav. S. F.* vi. p. 192. *Cinnyris flammaxillaris*, *Shelley, Mon. Nect.* pp. xxxv, 161, pl. 51; *Hume, S. F.* viii. p. 90; *Oates, S. F.* x. p. 197.

Description.—*Male.* Forehead, crown, sides of the head, back, scapulars, rump and upper tail-coverts greenish brown; tail black, the centre feathers narrowly tipped with white, the others progressively with larger white tips; chin, throat and breast rich metallic purple, bordered by rich steel-blue; below the breast a band of orange-red, and another, broader, below it black; axillaries flame-red; abdomen, sides of the body, vent and under tail-coverts yellow; wings and coverts brown, edged with greenish brown; under wing-coverts yellowish white; edge of the wing bright yellow.

The *female* has the upper plumage, wings and tail like the male, but the lower plumage is entirely yellow.

The *young male* is like the female till the following spring-moult, when it assumes the adult plumage. The orange-red pectoral band increases in size and intensity with age.

Iris light brown; eyelids plumbeous; legs and claws deep bluish black; mouth light salmon-colour; bill blackish. In the breeding-season the mouth becomes livid.

Length 4·5 inches, tail 1·4, wing 2·1, tarsus ·55, bill from gape ·8. The female is very slightly smaller.

An allied species, *C. rhizophoræ*, from China (Hainan), differs in having the forehead metallic blue.

The Burmese Yellow-breasted Sun-bird appears to be found over the whole of British Burmah. Mr. Blyth records it from Arrakan. In Pegu I have met with it over every part of the southern portion that I have visited; Capt. Wardlaw Ramsay procured it at Rangoon, where I also found it most plentiful; and Dr. Armstrong records it from the Irrawaddy Delta. I failed to observe this species in Northern Pegu, either above Henzadah on the Irrawaddy river, or above Shwaygheen on the Sittang river. Mr. Davison states that it is spread over Tenasserim, but that it is more plentiful in the southern portions than elsewhere, and Capt. Bingham found it plentiful in the Thoungyeen valley. Capt. Beavan secured it at Kyodan and on the Salween river.

It extends down the Malay peninsula and ranges into Siam and Cochin China, in which latter country Dr. Tiraud states that it is most abundant.

This beautiful species is perhaps the best known of all the Sun-birds in Burmah, for it is a most familiar and fearless little bird. It is quite as often seen hovering about flowers growing close to the verandah of a house as in the forests. It is generally found in pairs frequenting trees and shrubs which bear large flowers, and it subsists more on honey than any other species I am acquainted with. It secures the nectar in a flower either by perching close to the flower and bending over its head, or by poisoning itself in the air with repeated beats of the wings. The male during most of the dry weather has a most jubilant little song, and when singing it perches itself on the topmost branch of a bamboo clump or tree. The breeding-season lasts from February to August. The nest is a beautiful pear-shaped structure six or eight inches in length, with a small circular hole about the centre for an entrance. This hole is overhung by a portico, projecting an inch or more from the body of the nest. The materials used are fine grasses; and the exterior of the nest is covered with cobwebs, to which are attached pieces of bark, dead leaves and cocoons in such a way that it is most difficult to discover the nest, which is usually suspended from the tip of a low branch quite near the ground. The eggs are two in number, and are greenish white marked with greyish ash.

304. CINNYRIS ASIATICA.

THE PURPLE SUN-BIRD.

Certhia asiatica, *Lath. Ind. Orn.* i. p. 288. ***Arachnechthra asiatica***, *Jerd. B. Ind.* i. p. 370; *Hume, Nests and Eggs*, p. 151; *Wald. Ibis*, 1870, p. 20; *Adam, S. F. i.* p. 374; *Hume, S. F. iii.* p. 87; *Bl. & Wald. B. Burm.* p. 171; *Armstrong, S. F. iv.* p. 313; *Hume & Dav. S. F. vi.* p. 190. ***Arachnechthra intermedia***, *Hume, Ibis*, 1870, p. 436; *id. Nests and Eggs*, p. 154. ***Arachnechthra brevirostris***, *Blanford, Ibis*, 1873, p. 86; *Hume & Dav. S. F. vi.* p. 190. ***Arachnechthra edeni***, *Anders. Yunnan Exped.* p. 661, pl. xlix. ***Cinnyris asiaticus***, *Shelley, Mon. Nect.* pp. xxxvi, 181, pl. 57; *Legge, Birds Ceylon*, p. 566; *Hume, S. F. viii.* p. 91; *Scully, S. F. viii.* p. 259.

Description.—*Male.* The whole upper plumage, sides of the head and neck and the lesser wing-coverts metallic violet-blue; median and greater coverts and all the quills brown, edged paler; tail bluish black; chin, throat and fore neck metallic violet; breast like the sides of the neck; a narrow band below the breast coppery brown; the large pectoral tufts mixed orange-red and bright yellow; abdomen, vent and under tail-coverts violet-black.

The *female* has the whole upper plumage and wings light brown, the feathers of the latter margined paler; tail black, the feathers tipped with white, the outermost ones most so and the white occupying the terminal half of the outer web. Lower plumage entirely buffy or yellowish white.

The *young male* is like the female, but has a broad black streak down the chin and throat.

Bill black; iris hazel-brown; eyelids plumbeous; legs black; claws dark horn.

Length 4·5 inches, tail 1·5, wing 2·1, tarsus ·6, bill from gape ·8. The female is a trifle smaller.

Birds from Burmah are remarkable for the rich tone of their coloration, the prevailing tint being rich violet. In India, especially in the dry north-western portions, the prevailing tint is rather green.

The males of this species are said to don the female plumage in winter. This is not the case in Burmah; for full-plumaged males may be obtained all the year round. I very much doubt whether any species of *Cinnyris* found in Burmah has a seasonal change of plumage; *C. flammoxillaris* and *C. asiatica* certainly have not, so far as I have observed. Young males of the former species are clothed in female plumage all through their first winter; and consequently males in this plumage must necessarily be abundant. The same is the case, I believe, with *C. asiatica*. This circumstance has probably given rise to the belief that these two birds have a seasonal change of plumage.

The Purple Sun-bird is found over the whole of British Burmah, and has also been procured in Karennee by Capt. Wardlaw Ramsay. It is less common than *C. flammoxillaris* in places where the two species are found together. Mr. Davison states that in Tenasserim it is not found south of the town of Yeh, and Capt. Bingham found it commonly in the Thoungyeen valley; and I think it probable that eventually it will be found to extend quite to the south of Tenasserim, for it is a species of very wide distribution. Dr. Tiraud procured it in Cochin China. It is spread over the Indo-Burmese countries and over the whole peninsula of India and Ceylon, and it has been observed even in Persia.

In every respect this species resembles *C. flammoxillaris* in habits, and it builds precisely the same sort of nest. The nest, however, has not yet been found in Burmah; but it probably breeds from the beginning of the year to an advanced period of the rainy season.

Genus ANTHREPTES, *Swains.*

305. ANTHREPTES HYPOGRAMMICA.

THE BANDED SUN-BIRD.

Nectarinia hypogrammica, *S. Müll. Nat. Gesch. Land- en Volkenk.* p. 173. *Anthreptes nuchalis*, *Bl. J. A. S. B.* xii. p. 980. *Arachnechthra hypogrammica*, *Wald. Ibis*, 1870, p. 30. *Hypogramma nuchalis*, *Salvad. Ucc. Born.* p. 172; *Hume, S. F.* iii. p. 319. *Anthreptes hypogrammica*, *Shelley, Mon. Nect.* pp. xliv, 305, pl. 98; *Hume & Dav. S. F.* vi. p. 178; *Hume, S. F.* viii. p. 90.

Description.—*Male.* Forehead, crown, nape, sides of the head and neck, back, scapulars and wing-coverts yellowish green; rump, upper tail-coverts and a collar on the upper back metallic blue; tail blackish brown, the two or three outer pairs of feathers narrowly tipped with white; quills brown, edged with the colour of the back; chin, throat, breast, abdomen and sides of the body yellow, streaked with greenish brown; vent, flanks and under tail-coverts greenish brown.

The *female* wants the blue collar, and the rump and upper tail-coverts are of the same colour as the back.

Legs and feet greenish brown or dark plumbeous green; the bill horny black, and, in the male, the gape dull yellow; irides dark brown. (*Davison.*)

Length 5·5 inches, tail 2, wing 2·6, tarsus ·6, bill from gape ·9. The female is a little smaller.

The Banded Sun-bird, according to Mr. Davison, is found in the extreme south of Tenasserim, where it appears to be only a straggler. Subsequently, however, Messrs. Hume and Davison informed Capt. Shelley that it was found only south of Mergui, from which I would gather that this Sun-bird ranges up the Division as far north as that town, and is not confined to the extreme south only.

It extends down the Malay peninsula, and is found in the islands of Sumatra and Borneo.

Mr. Davison says:—"The present species occurs (mostly in pairs, though sometimes singly) for the most part only in the forest or on its outskirts: occasionally, of course, it does occur in gardens, where it may be seen haunting trees and shrubs that are in flower, feeding on the nectar at times, but often hunting the foliage also for insects. The note, like that of *C. malaccensis*, is a feeble chirrup."

306. ANTHREPTES SIMPLEX.

THE PLAIN-COLOURED SUN-BIRD.

Nectarinia simplex, *S. Müll. Nat. Gesch. Land- en Volkenk.* p. 173. **Nectarinia frontalis**, *Bl. J. A. S. B.* xiv. p. 558. **Arachnechthra simplex**, *Wald. Ibis*, 1870, p. 31. **Arachnophila simplex**, *Salvad. Ucc. Born.* p. 172; *Tweedd. Ibis*, 1877, p. 301. **Anthreptes xanthochlora**, *Hume, S. F.* iii. p. 320 (foot-note). **Anthreptes simplex**, *Shelley, Mon. Nect.* pp. xlv, 309, pl. 100; *Hume & Dav. S. F.* vi. p. 188; *Hume, S. F.* viii. p. 90.

Description.—*Male.* A large patch on the forehead metallic green; the whole upper plumage and wing-coverts olive-yellow; tail a deeper tint of the same; quills brown, edged with olive-yellow; sides of the head ashy green; cheeks, chin, throat and fore neck greenish ashy; remainder of lower plumage dull oily yellow; under wing-coverts whitish.

The *female* differs only in wanting the metallic patch on the forehead.

Legs and feet pale dirty green; the bill dark horny brown; irides wood-brown. (*Davison.*)

Length 4·5 inches, tail 2·1, wing 2·4, tarsus ·55, bill from gape ·7. The female is of the same size. Capt. Shelley and Mr. Hume both assert that the female is very much smaller than the male; and the former gentleman gives the length of the wing of the male as 2·45 inches and that of the wing of the female as 2·15. The female specimens contained in the British Museum, however, are not notably different in size from the males in the same collection.

The Plain-coloured Sun-bird appears to be rare in the south of Tenasserim, the only portion of Burmah in which it has yet been met with.

It extends down the Malay peninsula and is found in Sumatra and Borneo.

Nothing is known of its habits.

307. ANTHREPTES MALACCENSIS.

THE MALACCAN BROWN-THROATED SUN-BIRD.

Certhia malaccensis, *Scop. Del. Faun. et Fl. Insub.* ii. p. 91. **Certhia lepida**, *Lath. Ind. Orn.* i. p. 298. **Anthreptes malaccensis**, *Wald. Ibis*, 1870, p. 47 (partim); *Salvad. Ucc. Born.* p. 178 (partim); *Shelley, Mon. Nect.* pp. xlv, 315, pl. 102; *Hume & Dav. S. F.* vi. p. 186; *Hume, S. F.* viii. p. 90. **Anthreptes malaccensis**, *Bl. B. Burm.* p. 142.

Description.—*Male.* Forehead, crown, nape, back and sides of the neck metallic green or coppery red, according to the light; rump and upper tail-coverts metallic violet-purple; lores and sides of the head dull greenish

yellow ; a stripe from the gape down the side of the throat coppery purple ; chin and throat cinnamon-brown ; lower plumage yellow, tinged with green on the flanks and vent ; under wing-coverts and axillaries yellowish white ; tail bluish brown, edged with metallic purple on the outer webs ; lesser wing-coverts brilliant purple ; median coverts and scapulars olive-brown, tipped with cinnamon ; greater coverts olive-brown, edged with cinnamon ; quills brown, edged with olive-green, with a tinge of ferruginous.

The *female* has the upper plumage and the sides of the head yellowish green ; the ear-coverts with pale shaft-stripes ; lower plumage yellow, with a tinge of green on the sides ; tail brown, tipped very narrowly with whitish and edged on the outer webs with yellowish green ; wings and coverts dark brown, edged like the tail.

According to Mr. Davison the legs vary a good deal, but are generally more or less green ; claws green ; bill dark horny brown or nearly black ; the gape orange ; irides light red to dark brown.

Length 5·2 inches, tail 1·9, wing 2·7, tarsus ·6, bill from gape ·8. The female is rather smaller.

There are four other species closely allied to the present one : *A. rhodolæma* occurs in Malacca and Sumatra ; *A. celebensis* in Celebes and the Sula Islands ; the remaining two, *A. chlorigastra* and *A. griseigularis*, are found in the Philippine Islands. All these are barely more than races of *A. malaccensis* and perhaps hardly worthy of separation. Capt. Shelley, however, gives them all the rank of species.

The Malaccan Brown-throated Sun-bird occurs in Arrakan, according to Mr. Blyth ; and Mr. Hume has received specimens from Akyab in that Division. I have never met with it in Pegu ; nor has it ever been recorded from any portion of this Division. In Tenasserim Mr. Davison found it common in the whole Division from Amherst southwards.

It extends down the Malay peninsula, and is found in Siam and Cochin China. It also occurs in the islands of Sumatra, Java, Flores, Borneo and Palawan.

This species, according to Mr. Davison, appears to be especially fond of jungle near the sea-coast. It has the usual habits of the Sun-birds, but is said to feed more largely on insects than on nectar.

The nest of this bird is thus described by Capt. Shelley :—"The nest of this bird is oval in form, with a hole at one side near the top. It is rather loosely constructed of cocoanut-fibres, shreds of bark, and a few dead leaves, which bind together the white silk-like down of some plant-seeds, giving consistency to the structure, but not specially forming the lining."

308. ANTHREPTES SINGALENSIS.

THE RUBY-CHEEKED SUN-BIRD.

Motacilla singalensis, *Gm. Syst. Nat.* i. p. 964. **Nectarinia phœnicotis**, *Temm. Pl. Col.* 108. f. 1, 388. f. 2. **Chalcoparia singalensis**, *Wald. Ibis*, 1870, p. 48; *Salvad. Ucc. Born.* p. 180; *Hume & Dav. S. F.* vi. p. 189; *Hume, S. F.* viii. p. 90. **Chalcoparia phœnicotis**, *Bl. B. Burm.* p. 142. **Chalcoparia cingalensis**, *Hume, S. F.* iii. p. 86; *Armstrong, S. F.* iv. p. 313; *Anders. Yunnan Exped.* p. 663. **Chalcoparia phœnicotis**, *Oates, S. F.* v. p. 147. **Anthreptes phœnicotis**, *Shelley, Mon. Nect.* pp. xlv, 325, pl. 105; *Oates, S. F.* x. p. 197.

Description.—*Male.* The whole upper plumage and lesser wing-coverts brilliant metallic emerald-green; lores blackish; cheeks and ear-coverts rich copper-colour, bordered below by a line of rich metallic violet-purple; chin, throat and breast ferruginous buff; abdomen, sides of the body, vent and under tail-coverts yellow; tail black, edged externally with metallic green; under wing-coverts pale yellow; greater wing-coverts black, edged with metallic green; wings black, edged more or less with purple.

The *female* has all the lower plumage like the male; the upper plumage and the lesser wing-coverts olive-green; ear-coverts and cheeks slate-colour; greater wing-coverts and wings dark brown, edged with yellowish green; tail brown, broadly edged with yellowish green.

The *young* are like the female.

Bill black; gape orange-yellow; mouth yellow; iris lake-red; legs yellowish green; claws yellowish horny; eyelids greenish.

Length 4·4 inches, tail 1·6, wing 2·1, tarsus ·65, bill from gape ·6. The female is a trifle smaller.

The Ruby-cheeked Sun-bird is spread over the whole of Burmah. Both Mr. Blyth and Mr. Hume record it from Arrakan. I found it common in most parts of Pegu; but I did not observe it at Thayetmyo and Prome. It probably occurs there, however, as Capt. Wardlaw Ramsay procured it at Tonghoo, the character of the country round this town being similar to that of the Thayetmyo and Prome districts. Mr. Davison states that it is found throughout Tenasserim, not, however, ascending the hills.

To the north of Burmah it has been found in the Indo-Burmese countries, extending through the hill-tracts of Eastern Bengal to the Bhootan Doars. To the south, it ranges down the Malay peninsula to the islands of Sumatra, Java and Borneo.

The habits of this Sun-bird differ somewhat from those of the other species. Generally, except when breeding, it is found in small troops traversing the low bushes with a low twitter and searching the leaves for minute insects. At other times it frequents flowering trees and shrubs and parasitic plants, and is found in gardens as frequently as in the jungles.

This bird breeds in Southern Pegu from May to July or August. The nest is hung from the tip of a branch, sometimes not far from the ground; at other times high up in a mango tree. It is always well protected by leaves. The nest is a beautiful pear-shaped structure, constructed in most cases entirely of black hair-like fibres and ornamented exteriorly with cocoons, pieces of bark and small twigs. The nest is sometimes, but rarely, made of grass. The entrance, which is about halfway up the nest, is protected by an ample portico or awning, which extends down to below the base of the nest and laterally over pretty nearly half the structure. The eggs, two in number, are pinkish white, marked with brown and purplish brown.

Subfamily ARACHNOTHERINÆ.

Genus ARACHNOTHERA, *Temm.*

309. ARACHNOTHERA MAGNA.

THE LARGE INDIAN SPIDER-HUNTER.

Cinnyris magna, *Hodgs. Ind. Rev.* 1837, p. 272. **Arachnothera magna**, *Jerd. B. Ind.* i. p. 360; *Hume, S. F.* iii. p. 85; *Bl. B. Burm.* p. 140; *Gammie, S. F.* v. p. 385; *Shelley, Mon. Nect.* pp. xlix, 347, pl. 112; *Hume & Dav. S. F.* vi. p. 173; *Hume, S. F.* viii. p. 89; *Bingham, S. F.* ix. p. 169.

Description.—*Male and female.* Forehead and crown olive-yellow, each feather with a large black patch in the centre; lesser and median wing-coverts the same; remainder of the upper plumage olive-yellow, with distinct broad black shaft-stripes of black; greater wing-coverts and tertiaries olive-yellow, with black shafts; primaries and secondaries dark brown, margined with olive-yellow; tail olive-yellow, each feather with a band of black near the end, followed on all but the central pair by a lighter patch of pale yellowish; sides of the head like the back, but paler; the entire under plumage pale yellowish, each feather with a broad streak of black.

Bill black; iris brown; legs orange-yellow; claws yellow.

Length 7 inches, tail 2, wing 3·7, tarsus ·8, bill from gape 1·8. The female is smaller.

The Large Indian Spider-hunter has been found in the Arrakan and Tenasserim Divisions; Mr. Blyth records it from the former and Mr. Davison from the latter; he met with it as far south as Tavoy; and Capt. Bingham procured it in the Thoungyeen valley. I have never observed it in the Pegu Division; but it probably occurs there.

It extends through Chittagong and Tipperah to the hill-tracts of Eastern Bengal and Assam, and is also found abundantly in Sikhim and Nipal.

The habits of this species appear to be similar to those of the next. The nest has been found by Mr. Gammie in Sikhim; and a full account of the nidification by that gentleman is contained in Capt. Shelley's monograph. The nest is an open cup-shaped structure, composed of vegetable fibres felted together, externally mingled with skeleton leaves and lined with grass. "The nest," writes Mr. Gammie, "is suspended from about the middle of the under surface of a plantain tree by numerous threads (two hundred or so) of plantain-stem fibre, attached to rather more than half the rim of the cup, put through the blade of the leaf and knotted on the upper side." The eggs, usually three in number, are brown, speckled with deep purple.

310. ARACHNOTHERA AURATA.

BLYTH'S SPIDER-HUNTER.

Arachnothera aurata, *Bl. J. A. S. B.* xxiv. p. 478; *Hume, S. F.* iii. p. 85; *Bl. & Wald. B. Burm.* p. 140; *Shelley, Mon. Nect.* p. 351, pl. 112; *Hume & Dav. S. F.* vi. p. 174; *Hume, S. F.* viii. p. 89; *Oates, S. F.* x. p. 197.

Description.—*Male and female.* Like *A. magna*, but smaller and with the striations both above and below narrower, and almost obsolete on the lower back.

Bill black; the margins of the lower mandible yellow; mouth yellow; iris brown; eyelids plumbeous; legs orange-yellow; claws yellow.

Length 6·5 inches, tail 1·8, wing 3·4, tarsus ·8, bill from gape 1·6. The female is smaller.

Blyth's Spider-hunter is abundant over many portions of Pegu. I found it numerous in the evergreen forests of the Pegu hills in the northern portion of the Division; and it extends down the western side of the Sittang valley as far as Kadote on the Tonghoo road, where the dense forest begins to give place to the grassy plains. It appears to be abundant in the neighbourhood of Tonghoo, for Mr. de Wet sent me numerous specimens from that district. Further east Capt. Wardlaw Ramsay got it on the Karin hills at an elevation of 2,500 feet. In the Irrawaddy valley I observed it at Thayetmyo, but nowhere else. Mr. Davison states that he did not find it in any part of Tenasserim; but Capt. Beavan procured it at Kyodan, on the Salween river, in that Division. It is not yet known to occur elsewhere in Burmah.

This Spider-hunter is chiefly an inhabitant of forest, but occasionally it may be seen in gardens. It is very partial to spots in the jungle which

are overrun with wild plantains, the flowers of which appear to be rich both in nectar and insects. It is rather a shy bird, flying very rapidly from tree to tree and shunning observation; it has a peculiar note often uttered. I have never been able to find its nest.

311. ARACHNOTHERA MODESTA.

THE GREY-BREASTED SPIDER-HUNTER.

Anthreptes modesta, *Eyton*, *P. Z. S.* 1839, p. 105; *Salvad. Ucc. Born.* p. 183; *Hume*, *S. F.* iii. p. 85; *Wald. in Bl. B. Burm.* p. 140; *Hume & Dav. S. F.* vi. p. 176; *Shelley*, *Mon. Nect.* pp. 1, 353, pl. 113; *Hume*, *S. F.* viii. pp. 55, 89.

Description.—*Male and female.* The whole upper plumage and wing-coverts bright yellowish green, the feathers of the head dark-centred; quills dark brown, broadly edged with the colour of the back, the tertiaries almost wholly of this colour; sides of the neck and the upper part of the ear-coverts olive-green; cheeks, the lower portion of the ear-coverts, chin, throat and fore neck ashy green, obscurely streaked with brown; remainder of the lower plumage ashy green, paler on the abdomen, and the under tail-coverts tipped yellowish white; central tail-feathers yellowish green, broadly tipped with black; the others blackish, the basal two thirds of the outer webs yellowish green, and all the feathers with a spot of white near the tip on the inner webs; edge of the wing bright yellow; under wing-coverts and axillaries pale yellow.

Legs and feet reddish ochre to pale reddish brown; the upper mandible black, the lower reddish horny to pale reddish brown; irides brown. (*Davison*.)

Length 7 inches, tail 2·2, wing 3·5, tarsus ·75, bill from gape 1·5. The female is rather smaller.

The Grey-breasted Spider-hunter was observed by Mr. Davison in Tenasserim from the extreme south up to the north-west spurs of Mooleyit mountain.

It extends down the Malay peninsula, and is found in the islands of Sumatra and Java. Dr. Tiraud says that it is very common in Cochin China.

Mr. Davison records nothing peculiar about its habits.

312. ARACHNOTHERA LONGIROSTRA.

THE LITTLE SPIDER-HUNTER.

Certhia longirostra, *Lath. Ind. Orn.* i. p. 299. *Arachnothera pusilla*, *Bl. Cat. B. Mus. As. S. Beng.* pp. 222, 328; *Jerd. B. Ind.* i. p. 361; *Bl. & Wald. B. Burm.* p. 140; *Hume, S. F.* iii. p. 85. *Arachnothera longirostra*, *Salvad. Ucc. Born.* p. 186; *Tweedd. Ibis*, 1877, p. 300, pl. 114; *Shelley, Mon. Nect.* pp. 1, 357, pl. 114; *Fairbank, S. F.* v. p. 397; *Hume & Dav. S. F.* vi. p. 174; *Hume, S. F.* vii. p. 35, viii. p. 89; *Bingham, S. F.* ix. p. 170; *Oates, S. F.* x. p. 197.

Description.—*Male.* The upper plumage olive-green, the feathers of the forehead and crown centred with dark brown; lesser wing-coverts like the back; greater coverts and the wings brown, edged with olive-green; tail blackish, tipped with dull white and obsoletely margined with olive-green; lores whitish; sides of the head ashy brown; a short moustachial streak dark brown; chin and throat dull white; remainder of lower plumage deep yellow; a tuft of feathers on each side the breast chrome-yellow.

The *female* differs in wanting the pectoral chrome-yellow tufts.

Bill above brown, below plumbeous; iris dark brown; legs plumbeous; claws horn-colour.

Length 6·3 inches, tail 1·6, wing 2·6, tarsus ·65, bill from gape 1·5. The female is smaller.

The Little Spider-hunter is apparently distributed over the whole of British Burmah. Mr. Blyth states that it occurs in Arrakan. I have myself procured it once in the Pegu Division, at a place in the hills about ten miles north of the town of Pegu, and I have seen it in other localities. Capt. Wardlaw Ramsay observed it at Tonghoo. Mr. Davison states that it is common throughout Tenasserim, and Capt. Bingham got it in the Thoungyeen valley.

It extends down the Malay peninsula, and is found in the islands of Sumatra, Java, Borneo and Celebes. To the north of Burmah it ranges through Chittagong and the hill-tracts of Eastern Bengal, and is found over the greater part of India.

Bernstein found the nest of this species. This accurate observer describes it as of an oval form, and as attached to the underside of a large leaf, which thus forms the back wall of the nest. It is attached to the leaf by wool and fibres. The inside is lined with soft leaves and grass; and the outer portion is made up chiefly of skeleton leaves. The eggs are white, with a narrow zone of reddish-brown spots and streaks round the blunt end.

313. ARACHNOTHERA CHRYSOGENYS.

THE LESSER YELLOW-EARED SPIDER-HUNTER.

Arachnothera chrysogenys, Temm. *Pl. Col.* 388. fig. 1; *Salvad. Ucc. Born.* p. 181; *Hume, S. F.* iii. p. 85; *Shelley, Mon. Nect.* pp. li, 365, pl. 117; *Hume & Dav. S. F.* vi. p. 177; *Hume, S. F.* viii. p. 89.

Description.—*Male and female.* Upper plumage dull olive-green, the feathers of the head dark-centred; coverts and quills dark brown, broadly edged with the colour of the back; tail olive-green, with a rufescent tinge; feathers on the edge of the upper eyelid and a bunch of feathers springing from near the angle of the gape bright yellow; ear-coverts and sides of neck like the back; cheeks, chin, throat and upper breast dull brownish green, the centres of the feathers darker; lower breast, abdomen, vent and under tail-coverts yellow; sides of the body yellow, tinged with dusky; under wing-coverts and axillaries pale yellow.

Legs and feet fleshy white; the bill darker horny brown; the edges of both mandibles to within $\cdot 6$ of tip dirty yellow; gape fleshy white; irides brown. (*Davison.*)

Length 7 inches, tail 1·7, wing 3·5, tarsus $\cdot 75$; bill from gape 1·8. The female is rather smaller.

The Lesser Yellow-eared Spider-hunter was found by Mr. Davison in Tenasserim from Mergui down to Malewoon; and he states that it is not uncommon.

It ranges down the Malay peninsula and is found in the islands of Sumatra, Java and Borneo. Dr. Tiraud states that it is very common in Cochin China.

Mr. Davison says of this species:—"It affects gardens more than any of the other species; in fact, all our specimens were obtained in gardens, and none about cocoanut-groves and forest trees; and though, of course, it must occasionally occur about these also, I do not think that I have ever observed it in forest or scrub-jungle, or anywhere except in and about villages. In all its habits it resembles the other species."

Arachnoraphis flavigastra, is a closely allied species inhabiting the Malay peninsula, and is likely to occur in Tenasserim. It may be recognized by its larger size, by the eye being entirely surrounded by yellow, and by its stouter and more flattened bill.

Family DICÆIDÆ.

Genus DICÆUM, *Cuvier*.

314. DICÆUM CRUENTATUM.

THE SCARLET-BACKED FLOWERPECKER.

Certhia cruentata, *Linn. Syst. Nat.* i. p. 187. *Certhia coccinea*, *Scop. Del. Faun. et Flor. Insub.* ii. p. 91. *Nectarinia ignita*, *Begbie, Ann. Nat. Hist.* ser. 1, xvii. p. 408. *Dicæum coccineum*, *Jerd. B. Ind.* i. p. 373. *Dicæum cruentatum*, *Wald. P. Z. S.* 1866, p. 544; *Hume, S. F.* iii. p. 87; *Bl. & Wald. B. Burm.* p. 142; *Armstrong, S. F.* iv. p. 315; *David et Oust. Ois. Chine*, p. 83; *Hume & Dav. S. F.* vi. p. 192; *Anders. Yunnan Exped.* p. 663; *Oates, S. F.* vii. p. 46; *Hume, S. F.* viii. p. 90.

Description.—*Male.* Forehead, crown, nape, back, rump and upper tail-coverts rich crimson; lores, sides of the head and of the neck, tail, wings and wing-coverts black; chin, throat and the whole lower plumage buffy white.

The *female* has the head, nape and back olive-green, the centres of the feathers of the crown darker and the nape with a golden yellow tinge; rump and upper tail-coverts red; tail black; the whole lower plumage ashy buff, darker on the sides of the neck and body; upper wing-coverts dark brown, edged with olive-green; tertiaries the same; primaries and secondaries brown, edged exteriorly with greenish white.

Legs and feet black; bill and mouth black; iris dark brown; eyelids plumbeous; the female has the mouth flesh-coloured.

Length 3·5 inches, tail 1·05, wing 1·9, tarsus ·5, bill from gape ·45. The female is a little smaller.

The Scarlet-backed Flowerpecker appears to be found over every portion of British Burmah. Mr. Blyth records it from Arrakan. It is extremely abundant in Southern Pegu; and it has been obtained in Northern Pegu, at Thayetmyo by Capt. Feilden and at Tonghoo by Capt. Wardlaw Ramsay. Mr. Davison procured it in nearly every portion of Tenasserim; but Capt. Bingham did not meet with it in the Thoungyeen valley.

It extends through the Indo-Burmese countries to Bengal and the South-eastern Himalayas; and it is found throughout Southern China. To the south of Burmah it ranges down the Malay peninsula to Sumatra. It occurs in Siam; and, according to Dr. Tiraud, it is abundant in Cochin China. In Borneo it is replaced by *D. nigrimentum*, a closely allied species with the chin black.

This Flowerpecker is found abundantly in all descriptions of jungle ; but it is most partial to mango trees, which are usually very much infested with insects. It also frequents trees covered with parasitic plants, and not only feeds on insects, but also swallows minute berries. It has a peculiar sharp note constantly repeated.

This species appears to breed chiefly in March and April, in which months I have found many nests. The nest is generally suspended from the extremity of a branch high up and well concealed by drooping leaves. It is egg-shaped and only about four inches in height, and is constructed of the finest and whitest vegetable down, bound together by a few pieces of grass. The entrance-hole is placed about halfway between the top and bottom of the nest. The eggs, which are either two or three in number, are pure white.

315. DICÆUM OLIVACEUM.

THE PLAIN-COLOURED FLOWERPECKER.

Dicæum olivaceum, *Wald. Ann. Nat. Hist.* ser. 4, xv. p. 401 ; *Hume*, *S. F.* iii. p. 403, iv. p. 498 ; *Tweedd. Ibis*, 1877, p. 302 ; *Hume & Dav. S. F.* vi. p. 195 ; *Hume*, *S. F.* viii. p. 90 ; *Bingham*, *S. F.* ix. p. 171.

Description.—*Male and female.* The whole upper plumage olive-green, the rump rather brighter and the feathers of the head centred darker ; tail dark brown, the feathers faintly edged with olive-green ; wing-coverts brown, broadly edged with the colour of the back ; wings dark brown, edged with olive-green rather brighter than the back ; sides of the face and the whole lower plumage dull oily greenish yellow with an ashy tinge.

Legs and feet very dark plumbeous ; upper mandible and tip of lower mandible very dark brown or black ; rest of the lower mandible pale plumbeous ; irides deep brown. (*Davison.*)

Length 3·3 inches, tail 1, wing 1·8, tarsus ·45, bill from gape ·45. The female is of the same size.

This species is very closely allied to *D. virescens*, from the Andamans, which differs, however, in having the chin and throat albescent and the abdomen more yellow. This latter species was erroneously noted by Mr. Hume (*S. F.* ii. p. 473, vi. p. 196) as having been procured in Tenasserim.

The Plain-coloured Flowerpecker was discovered by Capt. Wardlaw Ramsay ; and he procured specimens on the Tonghoo and Karin hills. Mr. Davison subsequently obtained it in Tenasserim at Pahpoon, Wimpong and Meetan, and Capt. Bingham at Moulmein. In Capt. Wardlaw Ramsay's collection there is a specimen labelled as having come from Pegu.

It extends down the Malay peninsula ; and it has been observed in the

island of Sumatra. It has also been procured in the Bhootan Doars along the foot of the Himalayas.

D. minullum, Swinhoe, is a closely allied species, but is still smaller. It occurs in Hainan.

316. DICÆUM ERYTHRORHYNCHUM.

THE SMALL FLOWERPECKER.

Certhia erythrorhynchos, *Lath. Ind. Orn.* i. p. 299. ***Nectarinia minima***, *Tick. J. A. S. B.* ii. p. 577. ***Dicæum minimum***, *Jerd. B. Ind.* i. p. 374; *Hume, Nests and Eggs*, p. 155; *Legge, Birds Ceylon*, p. 574. ***Dicæum erythrorhyncha***, *Bl. & Wald. B. Burm.* p. 143; *Hume & Dav. S. F.* vi. p. 196; *Hume, S. F.* viii. p. 90.

Description.—*Male and female.* Upper plumage ashy olive, the feathers of the crown with dark centres; tail dark brown; wings and coverts brown, edged with the colour of the back; sides of the head and lower plumage buffy white.

Bill pale fleshy, with a dusky tip; legs leaden brown; irides brown. (*Jerdon.*)

Length 3·2 inches, tail 1, wing 1·8, tarsus ·5, bill from gape ·5. The female appears to be of about the same size.

This species is very close to *D. olivaceum*, from which, however, it may be distinguished by the absence of any decided green tinge on the upper plumage and by its very pale lower plumage, with hardly any of the oily yellowish-green tinge of *D. olivaceum*. In this latter also the bill, even in skins, is always black; in *D. erythrorhynchum* it is flesh-coloured.

The Small Flowerpecker is stated by Mr. Blyth to occur in Arrakan and also in Tenasserim, where he found it very common near Moulmein. No one has again met with the bird since Mr. Blyth made these remarks.

It is spread over a considerable portion of India from Bengal down to Ceylon and westwards to Khandala.

The nest, as described by Mr. Hume and others, is quite similar to that of *D. cruentatum*.

317. DICÆUM CHRYSORRHÆUM.

THE YELLOW-VENTED FLOWERPECKER.

Dicæum chrysorrhæum, Temm. *Pl. Col.* 478. fig. 1; *Jerd. B. Ind.* i. p. 374; *Salvad. Ucc. Born.* p. 168; *Wald. Ibis*, 1872, p. 380; *Bl. & Wald. B. Burm.* p. 142; *Anders. Yunnan Exped.* p. 663; *Hume & Dav. S. F.* vi. p. 195; *Hume, S. F.* viii. p. 90; *Bingham, S. F.* ix. p. 170; *Oates, S. F.* x. p. 198.

Description.—*Male and female.* The whole upper plumage and lesser wing-coverts yellowish green, brighter on the rump and upper tail-coverts; tail blackish; greater wing-coverts dark brown on the inner webs and yellowish green on the outer; quills very dark brown, the secondaries and tertiaries broadly edged with yellowish green, the primaries very narrowly with whitish; sides of the head and neck like the back; cheeks white; chin and throat white, with a greenish-brown mandibular streak between them and the cheeks; lower plumage whitish, streaked with greenish brown; *under tail-coverts golden yellow.*

Iris orange-red; eyelids pinkish; upper mandible and tip of the lower black; remainder of the lower mandible pale plumbeous; legs dark plumbeous; claws dark horn; mouth flesh-colour.

Length 4 inches, tail 1·2, wing 2·3, tarsus ·6, bill from gape ·5. The female is of the same size.

The Yellow-vented Flowerpecker is sparingly distributed over the whole Province. Mr. Blyth states that it occurs in Arrakan. I procured it in Pegu only at Rangoon; but Capt. Wardlaw Ramsay got it at Tonghoo. Mr. Davison found it throughout Tenasserim, except in the hilly portions; and Capt. Bingham observed it in the Thoungyeen valley.

It extends through the Indo-Burmese countries to the hill-tracts of Eastern Bengal; and Dr. Jerdon states that it is found in Nipal. It ranges down the Malay peninsula to Sumatra, Java and Borneo; and Dr. Tiraud gives it from Cochin China.

This species has similar habits to *D. cruentatum*. Its nest has not yet been described.

318. *DICÆUM TRIGONOSTIGMA*.

THE ORANGE-BELLIED FLOWERPECKER.

Certhia trigonostigma, Scop. *Del. Faun. et Flor. Insub.* ii. p. 91. *Certhia cantillans*, Lath. *Ind. Orn.* i. p. 299. *Dicæum croceiventre*, Vigors, *Mem. Raffl.* p. 673; *Mottl. & Dillw. Contr. Nat. Hist. Lab.* p. 17. *Dicæum trigonostigma*, Wald. *P. Z. S.* 1866, p. 545; *Stoliczka, J. A. S. B.* xxxix. pt. ii. p. 303; *Wald. Ibis*, 1872, p. 380; *Salvad. Ucc. Born.* p. 166; *Bl. B. Burm.* p. 142; *Wald. Ibis*, 1876, p. 349, pl. x. fig. 2; *Hume & Dav. S. F.* vi. p. 194; *Hume, S. F.* viii. p. 90; *Bingham, S. F.* viii. p. 195.

Description.—*Male*. Forehead, crown, nape, sides of the head and of the neck, scapulars and wing-coverts dull blue; back and rump flaming orange-yellow, deeper on the back; upper tail-coverts dull blue; chin, throat, cheeks and breast ashy grey; abdomen, sides of the body, vent and under tail-coverts flaming orange; under wing-coverts and axillaries whitish; tail black; wings black, edged with the colour of the head and coverts.

The *female* has the forehead, crown, nape, back, sides of the neck and scapulars olive-green; the rump and upper tail-coverts yellow, tinged with orange at the tips of the feathers; tail dark brown or blackish; coverts and wings dark brown, narrowly edged with olive-green; sides of the head rather ashy; chin and throat sordid green; breast and sides of the body ashy green; abdomen, vent and under tail-coverts bright yellow. Some females have an appreciable tinge of blue on the head and wings and frequently a tinge of yellow on the back.

Young males are like the female, but with an orange tinge on the yellow of the lower plumage.

Male: legs and feet horny black; the bill black; irides brown. *Female*: legs, feet and claws greenish to dark plumbeous; the upper mandible, from tip to nostril, and tip of lower mandible blackish horny; base of upper mandible reddish brown; lower mandible (except the tip) and gape pale orange-brown to orange-vermilion; irides grey to dark brown. (*Davison*.)

Length 3·6 inches, tail 1, wing 1·9, tarsus ·5, bill from gape ·55. The female is of the same size.

The Orange-bellied Flowerpecker is a somewhat rare species in Burmah, except in the southern parts of Tenasserim. Mr. Blyth states that it occurs in Arrakan. In Pegu I have only once met with it, and that was near Kyeikpadein; but Capt. Wardlaw Ramsay obtained it in the Karin hills. Mr. Davison found it in Tenasserim rare north of Mergui, but not uncommon south of that town.

It ranges down the Malay peninsula and is found in Sumatra, Java and Borneo. According to Dr. Tiraud it is not rare in Cochin China.

Messrs. Mottley and Dillwyn (*l.c.*) give an interesting account of the conduct of a young bird of this species in captivity. The nest as described by them appears to be of the type usually constructed by the birds of this genus.

Genus MYZANTHE, *Hodgs.*

319. MYZANTHE IGNIPECTUS.

THE FIRE-BREASTED FLOWERPECKER.

Myzanthé ignipectus, *Hodgs. J. A. S. B.* xii. p. 983; *Jerd. B. Ind.* i. p. 377; *Stoliczka, J. A. S. B.* xxxvii. pt. ii. p. 24; *Hume, Nests and Eggs*, p. 159; *Wald. in Bl. B. Burm.* p. 143; *David et Oust. Ois. Chine*, p. 84; *Hume & Dav. S. F.* vi. p. 200; *Hume, S. F.* viii. p. 90; *Scully, S. F.* viii. p. 261.

Description.—*Male.* The whole upper plumage metallic green or metallic blue, according to the way the light falls; median and greater coverts and tertiaries brown, edged with the colour of the back; primaries and secondaries dark brown, very indistinctly edged with blue; tail black, glossed with blue; sides of the head brown; sides of the neck like the back; lower plumage buff, washed with green on the sides of the body; the greater portion of the breast vermilion; under wing-coverts and axillaries pure white.

The *female* is olive-green above, tinged with ashy on the head; the tail is dark brown; the lower plumage buff; the wings and coverts brown, edged with the colour of the back.

The *young male*, according to Dr. Stoliczka, is green above, all the feathers tipped with fulvous, and the throat is whiter than in the old bird.

Bill black; irides brown or blackish brown; feet and claws dull or brownish black. The female had the base of the lower mandible plumbeous. (*Scully.*)

Length 3·2 inches, tail 1, wing 1·9, tarsus ·5, bill from gape ·4. The female is smaller.

The Fire-breasted Flowerpecker was procured by Capt. Wardlaw Ramsay in Karennee at an elevation of 4000 feet. It was also obtained by Mr. Davison near the summit of Mooleyit mountain in Tenasserim.

It occurs in the hill-tracts of Eastern Bengal and in the Himalayas from Bhootan up to the Sutlej river. Mr. Swinhoe procured it in the Fokein province in China.

Mr. Davison states that this species has the same habits as the birds of the preceding genus. The nest is said to be a pendent structure, pyriform in shape, with an opening near the top.

Genus PIPRISOMA, *Blyth*.

320. PIPRISOMA AGILE.

THE THICK-BILLED FLOWERPECKER.

Fringilla agilis, *Tick. J. A. S. B.* ii. p. 578. **Piprisoma agile**, *Jerd. B. Ind.* i. p. 376; *Hume, Nests and Eggs*, p. 158; *Beavan, Ibis*, 1867, p. 430, pl. x.; *Hume, S. F.* i. p. 434, viii. p. 90; *Legge, Birds Ceylon*, p. 579; *Scully, S. F.* viii. p. 260; *Oates, S. F.* x. p. 198.

Description.—*Male and female.* The whole upper plumage and lesser coverts dull olive-green, the centres of the feathers rather darker and the green brightest on the rump and upper tail-coverts; tail blackish, edged with green on the outer webs, and all the feathers tipped with white, very narrowly on the centre ones and more broadly on the outer ones; quills, median and greater coverts brown edged with the colour of the back; sides of the head ashy green; chin and throat yellowish white; an obscure greenish brown stripe runs down either side the throat from the base of the lower mandible to the breast; lower plumage yellowish or buffy white streaked with greenish brown, the streaks nearly obsolete on the centre of the abdomen; under tail-coverts brighter, with no streaks, the centres of the feathers only being dusky.

Bill plumbeous, blackish at tip; iris orange-yellow; legs dark plumbeous; claws blackish.

Length 4 inches, tail 1·3, wing 2·3, tarsus ·5, bill from gape ·4. The female is of much the same size.

The Thick-billed Flowerpecker occurs both in the Pegu and Tenasserim Divisions. In the former I procured a few specimens near Kyeikpadein; and in the latter my men obtained one bird at Malewoon.

It occurs in the hill-tracts of Eastern Bengal, and is found over nearly the whole of the peninsula of India with Ceylon.

This bird has much of the habits of *D. cruentatum*. The nest, however, is somewhat different. It is more or less globular, with an entrance near the top, and is composed of vegetable down and cobwebs woven together into a sort of pliable felt. It is suspended from a twig. The eggs are usually two or three in number, and are white marked with reddish brown.

Genus PRIONOCHILUS, *Strickl.*

321. PRIONOCHILUS PERCUSSUS.

THE CRIMSON-BREASTED FLOWERPECKER.

Pardalotus percussus, *Temm. Pl. Col.* 394. fig. 2; *Strickland, P. Z. S.* 1841, p. 29; *Tweedd. Ibis*, 1877, p. 303; *Hume & Dav. S. F.* vi. p. 196; *Hume, S. F.* viii. p. 90.

Description.—*Male.* The whole upper plumage, sides of the head and neck and lesser wing-coverts dull blue; a patch of crimson on the centre of the crown; tail brown, washed with blue on the outer webs; greater wing-coverts brown, edged with dull blue; quills brown, edged with lighter blue; a narrow white moustachial streak runs down the cheeks; point of the chin white; under wing-coverts and axillaries pure white; the whole lower plumage deep yellow, paler on the vent and under tail-coverts and washed with green on the sides of the body; a large patch of crimson on the breast.

The *female* has the whole upper plumage and lesser wing-coverts green; a patch of dull orange on the crown; greater wing-coverts, quills and tail dark brown edged with greenish; sides of the head green mixed with ashy; a moustachial stripe grey; chin ashy; lower plumage olive-yellow, washed with dusky on the sides; a patch of bright yellow, tinged with orange, on the breast, and the abdomen rather brighter than the other parts; under wing-coverts and axillaries white.

The *young* are like the female, but soon show a few feathers of the adult plumage and traces of the breast- and crown-patches.

Length 3·8 inches, tail 1·2, wing 2·2, tarsus ·55, bill from gape ·45. The female is smaller. The colours of the bill &c. do not appear to have been recorded by any naturalist.

P. thoracicus occurs in the Malay peninsula. It has the whole head, neck and breast black; there is a patch of crimson on the crown and another, very large one, on the breast. The upper plumage of the body is yellow.

The Crimson-breasted Flowerpecker was met with by Mr. Davison at Bankasoon, at the extreme southern point of Tenasserim.

It extends down the Malay peninsula, and occurs also in the islands of Sumatra and Java.

There is little to be said regarding the habits of these birds. They are all arboreal, climbing about the smaller branches of trees and searching the leaves for insects. They are said to eat berries as well as insects.

322. PRIONOCHILUS MACULATUS.

THE WHITE-THROATED FLOWERPECKER.

Pardalotus maculatus, *Temm. Pl. Col.* 600. fig. 3. **Prionochilus maculatus**, *Salvad. Ucc. Born.* p. 164; *Hume & Dav. S. F.* vi. p. 199; *Hume, S. F.* viii. p. 90.

Description.—*Male.* The whole upper plumage and lesser wing-coverts yellowish green; a patch of fiery red on the crown; greater coverts, wings and tail brown edged with green; sides of the head ashy green; lores and moustachial streak greenish white; a dull green streak below this moustache; the space between these green streaks pale yellow; breast and sides of the neck bright yellow streaked with brown; abdomen, vent and under tail-coverts bright yellow; sides of the body yellow washed with dusky; under wing-coverts and axillaries pale yellow.

The *female* differs only in having the coronal patch yellow.

In the males the legs and feet were very dark plumbeous, in the female dirty smalt-blue; the upper mandible and lower mandible to angle of gonys black; rest plumbeous in males, smalt-blue in the female; irides dull red. (*Davison.*)

Length 3·7 inches, tail 1·1, wing 2·1, tarsus ·5, bill from gape ·5. The female is smaller.

The White-throated Flowerpecker, according to Mr. Davison, is found in Tenasserim from its southernmost point to about Mergui or a little further north; and he states that it is rare.

It occurs in the Malay peninsula, Sumatra and Borneo.

323. PRIONOCHILUS MODESTUS.

HUME'S FLOWERPECKER.

Prionochilus modestus, *Hume, S. F.* iii. p. 298; *Hume & Dav. S. F.* vi. p. 200; *Hume, S. F.* viii. p. 90; *Bingham, S. F.* ix. p. 171; *Hume, S. F.* x. p. 198 (note).

Description.—"The whole upper plumage is a dark olive-green, in some specimens precisely the shade of *Dicaeum concolor*, Jerd., in others somewhat lighter and brighter; the rump and upper tail-coverts are slightly yellower; the quills, coverts and tail-feathers are dark hair-brown, all edged with yellowish olive-green; all the tail-feathers are very narrowly tipped with white, the tipping on the exterior feathers of the tail being much deeper on the inner webs. The shoulder of the wing is white; the

wing-lining white, mingled with olivaceous grey. There is a dull greenish-white stripe through the lores. The cheeks, ear-coverts and sides of the neck dull green like the upper parts, but somewhat greyer. The lower parts are white tinged with pale yellow. A narrow ill-defined stripe of olivaceous grey runs down either side of the throat from the base of the lower mandible. The whole of the breast is streaked and the whole of the sides and flanks suffused with this greyish olive; but the centre of the abdomen, the vent, the tibial plumes and lower tail-coverts are pure *very pale* yellow, or perhaps it should be called yellowish white.

"The irides vary in different specimens from pale sienna-brown to pale yellowish red and orange. The legs, feet and claws are dark plumbeous; the upper mandible varies from pale horny brown to horny black. The gape is always more or less orange, as is also the inside of the mouth; the lower mandible varies; in some it is fleshy white tipped brownish, in others light plumbeous or blue, while in one or two specimens, shot later in the spring, the lower mandible as well as the gape was orange."

I quote Mr. Hume's original description of this species, as I have not been able to examine a specimen.

The following are the average dimensions of male birds as given by Mr. Hume:—Length 4·1 inches, tail 1·2, wing 2·4, tarsus ·45, bill from gape ·4 to ·45. The females are rather smaller.

Hume's Flowerpecker was obtained by Mr. Davison in Tenasserim at Amherst, Mergui and Malewoon. Capt. Bingham found it also in the Thoungyeen valley.

It extends down the Malay peninsula as far as Copah.

This species is very close in coloration to *Piprisoma agile*, a bird which is also found in Tenasserim. Mr. Hume acknowledges that the only differences lie in the shape of the bill. He says:—" *P. agile* is a pale grey brown with a faint greenish tinge, and *P. modestus* a pure green. Yet I have seen faded birds of the latter undistinguishable, so far as colour went, from freshly moulted ones of the former. But the bills differ altogether; that of *P. modestus* is considerably longer, and *yet* the gonys of *P. agile* is a third longer than that of *P. modestus*."

The bills of both species are, however, so very small that I doubt very much whether these very minute differences in their shape are of any appreciable value.

Genus ZOSTEROPS, *Vigors & Horsf.*

324. ZOSTEROPS PALPEBROSA.

THE INDIAN WHITE-EYE.

Sylvia palpebrosa, *Temm. Pl. Col.* 293. fig. 3. **Zosterops simplex**, *Swinhoe*, *P. Z. S.* 1862, p. 317; *Hartl. Journ. f. Orn.* 1865, p. 13; *David et Oust. Ois. Chine*, p. 85; *Anders. Yunnan Exped.* p. 631; *Hume, S. F.* vii. p. 403. **Zosterops palpebrosa**, *Jerd. B. Ind.* ii. p. 265; *Hartl. Journ. f. Orn.* 1865, p. 14; *Hume, Nests and Eggs*, p. 397; *Bl. B. Burm.* p. 110; *Anders. Yunnan Exped.* p. 631; *Legge, Birds Ceylon*, p. 582; *Hume, S. F.* viii. p. 104; *Scully, S. F.* viii. p. 322; *Oates, S. F.* viii. p. 227.

Description.—*Male and female.* The whole upper plumage, wing-coverts and sides of the head greenish yellow; the chin and throat bright yellow; breast, abdomen and flanks greyish white; under tail-coverts yellow; wings dark brown edged with greenish yellow; a ring of feathers round the eye white; feathers in front and below the eye black; tail brown, narrowly margined with greenish yellow.

Bill black; base of lower mandible bluish grey; irides yellowish hazel; feet dark plumbeous; claws brownish horny. (*Scully.*)

Length 4·2 inches, tail 1·7, wing 2·1, tarsus ·6, bill from gape ·55.

The Indian White-eye is stated by Mr. Blyth to occur in Arrakan and Tenasserim. In Pegu, Capt. Feilden observed it at Thayetmyo, and Capt. Wardlaw Ramsay on the Karin hills east of Tonghoo. I procured a few birds of this species at Kyeikpadein, but found it rare as compared with the next.

It is found throughout the Indo-Burmese countries, ranging on one side into China and on the other into India, where it is spread over the whole peninsula and Ceylon.

This species and the next are found in flocks or small companies, moving from tree to tree with a low twitter, searching for insects among the leaves and buds. They also carefully inspect the interior of flowers, inserting their bills to the very bottom for concealed insects. They are frequently seen in gardens where the trees are large, but they usually resort to the outskirts of forests and well-wooded localities.

The nest is a small cup suspended between two twigs and made of vegetable fibres, grass and cobwebs. The eggs are usually two in number, pale blue in colour.

Chinese birds, which were named *Z. simplex* by Mr. Swinhoe, have the upper plumage darker, almost an olive-green. The variations, however, in this tint are considerable, and I do not think that the Chinese bird can be maintained as distinct. The birds I procured in Pegu are all referable to *Z. simplex*, inasmuch as they are olive-green above. Specimens from Tenasserim are greenish yellow, and are referable to *Z. palpebrosa*.

325. ZOSTEROPS SIAMENSIS.

THE SIAMESE WHITE-EYE.

Zosterops siamensis, *Bl. Ibis*, 1867, p. 34; *id. B. Burm.* p. 111; *Wald. Ibis*, 1876, p. 350, pl. x. fig. 1; *Hume & Dav. S. F.* vi. p. 375; *Hume, S. F.* viii. p. 104; *Oates, S. F.* x. p. 228. *Zosterops austeni*, *Wald. in Bl. B. Burm.* p. 111; *Hume, S. F.* v. p. 56; *Hume & Dav. S. F.* vi. p. 376; *Hume, S. F.* viii. p. 104.

Description.—*Male and female.* Lores and a small patch under the eye black; a circle of feathers round the eye white; the whole plumage yellow, brightest below; wings and tail dark brown, each feather edged externally with yellow, narrowly on the primaries, broadly on the secondaries, and the yellow occupying nearly the whole of the tertiaries.

Iris light reddish brown; bill horn-colour, plumbeous at the base of the lower mandible and at the gape; mouth flesh-colour; feet and claws light plumbeous.

Length 4·2 inches, tail 1·6, wing 2, tarsus ·55, bill from gape ·52. The female is a trifle smaller.

This species differs from the preceding in having the whole lower plumage yellow. *Z. austeni*, the type of which I have examined, does not appear to me to differ from *Z. siamensis*. On the lower plumage the yellow is paler than usual; but this is probably due to the bird being young. The length of the wing in the original description is given as 2·6 inches; but this is a mistake, as the bird is no larger than *Z. siamensis*.

The Siamese White-eye is very abundant in Southern Pegu from Rangoon up to Kyeikpadein and Pegu. Capt. Wardlaw Ramsay procured it at Rangoon and also in Karennee at an elevation of 2500 feet. Mr. Davison met with it in Tenasserim only from Thatone down to Amherst and on Mooleyit mountain; but I think it probable that its range in Tenasserim will be found much larger than this.

Dr. Tiraud states that this species is very common in Cochin China; and I presume that it occurs in Siam.

This bird is found only in forests and remote orchards in high trees, to the tops of which it persistently keeps. Its presence is made known by its often repeated note, which is a low twitter.

326. ZOSTEROPS AURIVENTRIS.

TEMMINCK'S WHITE-EYE.

Zosterops lateralis, Temm. Mus. Lugd.; Hartl. J. f. O. 1865, p. 15; Tweedd. Ibis, 1877, p. 303; Hume, S. F. vii. p. 452, viii. p. 104. *Zosterops auriventer*, Hume & Dav. S. F. vi. p. 519; Hume, S. F. viii. pp. 163, 497. *Zosterops buxtoni*, Nicholson, Ibis, 1879, p. 167.

Description.—*Male and female.* In general like *Z. palpebrosa*, but differing in having the tail black without any greenish-yellow margins, in the yellow below being confined to the chin and upper margin of throat, in the abdomen being darker plumbeous, and in having a yellow line down the centre of the abdomen.

The dimensions are the same as those of *Z. palpebrosa*, excepting that the tail is only 1·5 inches in length.

Z. lateralis, Lath., has been identified with a *Zosterops* inhabiting New Zealand (*cf.* Buller, 'Birds of New Zealand,' p. 80); and consequently Temminck's name cannot be used. It may be convenient to allow Latham's name to apply to the New-Zealand bird; but I would remark that his description of the bird does not at all fit the New-Zealand *Zosterops*, the only bird of this genus known to inhabit those islands. Latham's bird came from New Holland; and there is nothing in his description to show that it is a *Zosterops* at all. The Burmese bird has, however, been named by Messrs. Hume and Davison; and I think it preferable to adopt their name.

Allied species from China are *Z. erythropleura*, with a maroon patch on either flank, and *Z. subrosea*, with a rosy tinge on the abdomen and sides of the body.

Temminck's White-eye was obtained by Mr. Davison in Tenasserim near Tavoy.

It has also been found in Java, Sumatra and Timor.

Section *OSCINES CONIROSTRES*.

Family FRINGILLIDÆ.

Subfamily LOXIINÆ.

Genus CARPODACUS, *Kaup*.

327. CARPODACUS ERYTHRINUS.

THE COMMON ROSE-FINCH.

Loxia erythrina, *Pall. Nov. Comm. Petrop.* xiv. p. 587, pl. 23. fig. 1 ; *Jerd. B. Ind.* ii. p. 398 ; *Dresser, Birds Eur.* iv. p. 75, pl. ; *Bl. B. Burm.* p. 94 ; *Oates, S. F.* iii. p. 342 ; *Scully, S. F.* iv. p. 170 ; *David et Oust. Ois. Chine*, p. 350 ; *Hume, S. F.* viii. p. 108 ; *Scully, S. F.* viii. p. 335 ; *Biddulph, Ibis*, 1881, p. 83 ; *id. S. F.* ix. p. 348 ; *Oates, S. F.* x. p. 234.

Description.—*Male in breeding-plumage.* Chin, throat, head, nape and rump brilliant crimson, the sides of the head duller and the ear-coverts tinged with brown ; lores brown ; back and scapulars dull red, the terminal third of the feathers being red and the basal two thirds grey, but this colour not showing unless the feathers are disarranged ; each feather of these parts is in addition narrowly tipped paler ; upper tail-coverts brown, margined with dull red ; tail brown, suffused with ruddy on the outer webs ; belly and flanks pale crimson, paling to rosy white at the vent and under tail-coverts ; axillaries smoky grey ; upper wing-coverts brown, tipped and margined with dull crimson ; wings brown, more or less suffused with dull crimson on the outer webs of the quills.

Male in winter plumage. The chin, throat, head, nape and rump are a dull crimson, brighter than the back ; the breast, abdomen, flanks and vent pale rose-colour with a tinge of yellow ; the wing-coverts are tipped with rose-colour instead of crimson ; the wings and tail are much the same as in summer.

The *female at all seasons* has the whole upper plumage olive-brown, each feather fringed with yellowish brown ; the upper wing-coverts are brown, broadly tipped with yellowish white or pale ochraceous ; and the wings and tail are brown, the outer webs being narrowly margined with pale ochraceous ; the ear-coverts are brown, with the shafts paler ; chin, throat, breast, upper abdomen and flanks light brown, streaked with dark brown ; centre of abdomen, vent and under tail-coverts whity brown.

Bill grey horny, darker on culmen ; irides brown ; feet brown fleshy. (*Scully.*)

Length 6 inches, tail 2·6, wing 3·2, tarsus ·8, bill from gape ·5. The female is rather smaller.

The Common Rose-Finch is recorded from Arrakan by Mr. Blyth; and my men, who accompanied Mr. Theobald in an excursion over the hills of that Division, procured me one specimen. In Pegu Capt. Wardlaw Ramsay observed it at Tonghoo and in the Karin hills, and Mr. Hume states that he has received it from Thayetmyo. It has not yet been found in any other part of the Province. It is a winter visitor to Burmah.

In winter this Finch is found in China and over the greater portion of India. In the summer it resorts to Northern Asia and Europe, extending occasionally even into Great Britain.

The nest is described as being cup-shaped, loosely made of dry bents and occasionally lined with hair. It is placed in bushes, generally thorny ones. The eggs, usually five in number, are bluish green, marked with reddish black.

This Rose-Finch is found in open country and appears to be very partial to bamboo-jungle, on the seeds of which plants it feeds. Dr. Jerdon says :—"It frequents alike groves, gardens and jungles, feeding on various seeds and grain; also not unfrequently on flower-buds and young leaves. . . . Now and then it is seen in large flocks, but in general it associates in small parties."

Subfamily FRINGILLINÆ.

Genus PASSER, *Brisson*.

328. PASSER INDICUS.

THE INDIAN HOUSE-SPARROW.

Passer indicus, *Jard. & Selby, Ill. Orn.* iii. pl. 118; *Jerd. B. Ind.* ii. p. 362; *Hume, Nests and Eggs*, p. 457; *Bl. B. Burm.* p. 93; *Hume, S. F.* iii. p. 156; *Hume & Dav. S. F.* vi. pp. 406, 520; *Hume, S. F.* viii. p. 169; *Bingham, S. F.* viii. p. 195. **Passer domesticus** (*Linn.*), *Legge, Birds Ceylon*, p. 600; *Hume, S. F.* viii. p. 107; *Scully, S. F.* viii. p. 333.

Description.—*Male*. Head from forehead to nape ashy grey; lores and round the eye blackish; cheeks, ear-coverts and sides of neck pure white; a broad streak from the eye over the ear-coverts, and passing partially round the end of them, chestnut; chin, throat and the central portion of the breast black, some of the lowermost feathers margined with ashy; remainder of lower plumage ashy white; back and scapulars chestnut, the terminal two thirds of the inner webs black; rump and upper tail-coverts

ashy grey; tail brown, margined paler; lesser wing-coverts chestnut; median coverts blackish, broadly tipped with white; greater coverts blackish, broadly margined with rufous and tipped paler; quills dark brown, margined with pale rufous.

The *female* has the head from the forehead to the nape and the extreme upper back with the rump and upper tail-coverts brown; the back and scapulars pale rufous, with the inner webs chiefly black; tail brown, edged paler; a rather broad supercilium pale rufous-white; sides of the head ashy brown; the whole lower plumage ashy white, darker on the breast; lesser wing-coverts brown; median coverts blackish, broadly tipped with rufous-white; greater coverts and wings dark brown, edged with pale rufous.

In fresh plumage both sexes have the feathers of the back margined with ashy; but these margins soon wear off.

Bill in the male blackish, in the female brown; iris brown; legs brownish flesh-colour; claws brown.

Length 6 inches, tail 2·2, wing 3, tarsus ·75, bill from gape ·55. The female is rather smaller.

The Indian Sparrow differs from the European bird in having the sides of the head pure white instead of ashy white, and in being much brighter in coloration. *P. pyrrhonotus* is similar to *P. indicus*, but smaller; and *P. flavicollis* may be recognized by the yellow spot on the throat. Both these species inhabit India.

The Indian House-Sparrow is generally diffused over Arrakan and Pegu, but is not so abundant as the next species. In Tenasserim it appears to be rarely met with. Both Capt. Bingham and Mr. Davison observed it at Moulmein and its neighbourhood, but nowhere else.

It is not known to occur in China; but Dr. Tiraud states that it is found in Cochin China in the same localities as *P. montanus*. It is spread over the Indo-Burmese countries and is met with over the whole peninsula of India and Ceylon. To the west of India the European form begins to appear.

This well-known Sparrow is entirely an inhabitant of villages and towns, although a few may often be seen in and about isolated houses in the jungle. This species and the next are usually found together. It breeds throughout the dry weather, commencing as soon as the rains are over. The nest, which is a shapeless-mass of grass, straws, rags and feathers, is placed in any convenient corner in the roofs of buildings, and occasionally in a bamboo-clump near a house. The eggs, usually five in number, are white or greenish, marked with various shades of brown.

329. PASSER MONTANUS.

THE EUROPEAN TREE-SPARROW.

Fringilla montana, *Linn. Syst. Nat.* i. p. 324; *Jerd. B. Ind.* ii. p. 366; *Hume, Nests and Eggs*, p. 460; *Bl. B. Burm.* p. 94; *Dresser, Birds Eur.* iii. p. 597, pl.; *Scully, S. F.* iv. p. 165; *Hume, S. F.* iv. p. 499; *Dav. et Oust. Ois. Chine*, p. 340; *Hume & Dav. S. F.* vi. p. 407; *Anders. Yunnan Exped.* p. 601; *Hume, S. F.* viii. p. 107; *Scully, S. F.* viii. p. 334.

Description.—*Male and female.* The whole head from forehead to nape vinous chestnut; lores, feathers under the eye and a patch under the ear-coverts and encroaching upon them black; with this exception the sides of the face and neck are white; chin and throat black; lower plumage ashy, whitish on the abdomen and tinged with fulvous on the sides of the breast, flanks and under tail-coverts; back and scapulars pale chestnut, with the inner webs of the feathers chiefly black; rump and upper tail-coverts yellowish brown; tail brown, edged with fulvous; lesser wing-coverts chestnut; median coverts black, broadly tipped with white; greater coverts blackish, edged with pale chestnut and tipped with whitish; quills dark brown edged with rufous.

Bill black; iris brown; legs flesh-colour; claws brown.

Length 5·6 inches, tail 2·3, wing 2·7, tarsus ·7, bill from gape ·55. The female is of about the same size as the male.

The European Tree-Sparrow is abundant over the whole of British Burmah, and is the Common House-Sparrow of the country.

It has a very wide range; it inhabits the Malay peninsula, Java, Cochin China, Siam, the whole of China and Japan, the Himalayas, Central Asia and Siberia, in which latter country Mr. Seebohm observed it as far north as Yen-e-saisk'. Westwards it ranges into Europe, where it is found over the whole continent, and it also occurs in North Africa.

This Sparrow, the most abundant species in Burmah, is found almost exclusively confined to towns, villages and buildings. It outnumbers *P. indicus* in most parts of Burmah; but the two birds are generally found together. In its mode of nidification and habits it resembles the preceding species.

330. PASSER FLAVEOLUS.

THE PEGU HOUSE-SPARROW.

Passer flaveolus, *Bl. J. A. S. B.* xiii. p. 946; *Hume, Nests and Eggs*, p. 460; *Bl. & Wald. B. Burm.* p. 94; *Hume, S. F.* iii. p. 156; *Anders. Yunnan Exped.* p. 602; *Hume, S. F.* viii. p. 107; *Oates, S. F.* x. p. 233. *Passer jugiferus*, *Temm., Bonap. Consp. Av.* i. p. 508; *Bl. Ibis*, 1870, p. 172.

Description.—*Male.* Lores, chin and a stripe down the throat black; a line over the lores from the nostrils to the eye yellow; cheeks and ear-coverts with the whole lower plumage and under wing-coverts rather bright yellow; a patch extending from the eye over the ear-coverts to the sides of the nape chestnut; forehead, top of head, nape and hind neck greenish olive; back, scapulars and lesser wing-coverts chestnut; lower back and rump brown tinged with yellow; tail brown, the outer webs tinged with olive-yellow; median wing-coverts dark brown, broadly tipped with white; greater wing-coverts and all the quills dark brown, edged with yellowish white.

Female. The chin, throat, cheeks and the whole lower plumage with the under wing-coverts pale yellow; a streak from the eye to the nape yellowish white; the upper plumage from the forehead to the upper tail-coverts, the scapulars and lesser wing-coverts hair-brown, the shafts of all the feathers darker; the median and greater wing-coverts and the quills dark brown, each feather edged with yellowish white; tail brown, the feathers edged with whitish on the outer webs.

Bill black in the male, flesh-colour in the female; iris dark hazel-brown; legs and claws plumbeous flesh-colour.

Length 5·5 inches, tail 2·1, wing 2·7, tarsus ·6, bill from gape ·55. The female is rather smaller than the male.

The Pegu House-Sparrow is tolerably common about Thayetmyo. I have also observed it at Rangoon and Pegu, and throughout the intervening country. Capt. Wardlaw Ramsay met with it in Karennee.

Dr. Tiraud states that it is very abundant in Cochin China; and it is therefore not improbable that Temminck's *P. jugiferus* really came from the Philippine Islands. Dr. Anderson procured it at Mengoon on the Irrawaddy in Independent Burmah.

This Sparrow is comparatively rare, and not so frequently seen in houses, even in Thayetmyo, as either of the two preceding species. It has a fondness for the jungle, and makes its nest for the most part in bamboo-clumps. At the Wanetkone bungalow, however, between Pegu and Rangoon, I discovered its nest in the roof of the verandah at the end of March. It contained young birds. The note of this Sparrow is very conspicuously louder than that of the other House-Sparrows.

331. PASSER ASSIMILIS.

THE ALLIED HOUSE-SPARROW.

Passer assimilis, Wald. *Ann. Nat. Hist.* ser. 4, v. p. 218; *Bl. B. Burm.* p. 94; *Hume, S. F.* iii. p. 157; *Hume & Dav. S. F.* vi. p. 407; *Hume, S. F.* viii. p. 107; *Wardlaw Ramsay, Tweedd. Mem., App.* p. 668.

Description.—*Male.* The whole upper plumage from the nostrils to the rump deep chestnut; upper tail-coverts greyish brown with dark shaft-stripes; the feathers of the back with the inner webs black at the tip; lores, feathers round the eye and over the ear-coverts brown; cheeks, ear-coverts and sides of the neck pure white; a broad black streak from the chin over the throat to the upper breast, where it becomes wider; lower plumage sooty brown; lesser wing-coverts chestnut; median coverts black, broadly tipped with pure white; greater coverts brown, edged with pale rufous and tipped with whitish; primaries and secondaries dark brown, narrowly edged with pale rufescent, the third to the seventh primaries with a broader edge of the same at the base of the outer webs; tertiaries blackish, edged with chestnut; tail brown, edged paler.

Female. Head and nape brown, tinged with rufescent, the feathers of the forehead with darker centres; back rufescent brown, the terminal portion of the inner webs black and the outer webs paler than the inner ones; rump pale chestnut; upper tail-coverts greyish brown; tail brown; a distinct supercilium pale rufescent; lores and a short streak behind the eye dark brown; cheeks and ear-coverts grey; a large patch below the ear-coverts fulvous-yellow; chin and throat dark brown; lower plumage greyish brown, fulvescent or yellowish on the abdomen; under tail-coverts brown, edged with yellowish; lesser wing-coverts rufescent; median coverts dark brown, broadly tipped with pure white; greater coverts dark brown, narrowly edged with whitish; quills dark brown, narrowly edged with pale rufescent, the third to the seventh primaries with a broader edge of the same near the base of the outer webs; tertiaries and inner coverts dark brown, edged more broadly with rufous.

Length 4·5 inches, tail 1·7, wing 2·7, tarsus ·65, bill from gape ·55. The female is of about the same size.

The above description of the male is taken from the type specimen, and the description of the female from a bird procured by Captain Wardlaw Ramsay in Karennee. This Sparrow differs from *P. rutilans* of S. China in being much smaller, *P. rutilans* having a wing 2·9 and a tail of 2 inches. In *P. assimilis* the black of the throat in the male comes down over the upper breast, instead of being confined to the throat; it also has the tips of the median wing-coverts pure white, not tinged with rufescent as in

P. rutilans; and it has the lower plumage much darker. In *P. assimilis* the female has the patch on the side of the neck under the ear-coverts pale yellow and not fulvous, concolorous with the throat; the chin and throat are dark brown, not concolorous with the breast; the rump is distinctly chestnut, and not merely rufescent olive-brown; and, lastly, the abdomen is distinctly tinged with yellow.

From *P. cinnamomeus* the male differs by having the cheeks and sides of the neck pure white, and by having no yellow on the lower plumage. The females are much alike; but in *P. assimilis* the chin and throat are dark brown, while in *P. cinnamomeus* the chin and throat are concolorous, or nearly so, with the lower plumage. The two species differ also in size, the wing in *P. cinnamomeus* being 3 and the tail 2·3 inches. There is no other Sparrow with which *P. assimilis* could be confounded. *P. ouratensis* is a species from China which I have not been able to examine.

This Sparrow was originally obtained at Tonghoo; but subsequently Captain Wardlaw Ramsay met with it in Karennee. Nothing is known about its habits or distribution.

Subfamily EMBERIZINÆ.

Genus EMBERIZA, *Linn.*

332. EMBERIZA FUCATA.

THE GREY-HEADED BUNTING.

Emberiza fucata, *Pall. Reis. Russ. Reichs*, iii. p. 698; *Jerd. B. Ind.* ii. p. 375; *Wald. in Bl. B. Burm.* p. 95; *David et Oust. Ois. Chine*, p. 325; *Hume & Dav. S. F.* vi. p. 407; *Anders. Yunnan Exped.* p. 603; *Hume, S. F.* viii. p. 107; *Oates, S. F.* x. p. 234. **Citrinella fucata**, *Hume, Nests and Eggs*, p. 465; *id. S. F.* iii. p. 157.

Description.—*Male in summer.* Head, nape and sides of the neck grey, with black streaks; back and scapulars reddish brown, with large black streaks; rump reddish brown, without streaks; upper tail-coverts fawn-brown, with dark shaft-stripes; small and median wing-coverts chestnut, the latter with black shaft-stripes; greater coverts and tertiaries blackish, with broad reddish-brown edgings to both webs; quills brown, with the outer webs edged reddish brown; lores and feathers round the eye mixed brown and grey; ear-coverts chestnut; cheeks and a stripe under the ears white; below this a thin black line, widening on the neck and forming a gorget across the breast much interrupted with white; chin and throat

pure white ; below the black gorget another one of chestnut ; remainder of lower plumage fawn-colour, striped with black on the flanks ; outer tail-feathers white on the outer web, and the inner web with a long diagonal patch of white ; the next pair dark brown, with a patch of white on the inner web at the tip ; the other tail-feathers are dark brown, edged on the outer web with russet.

Male in winter. The grey of the head is much diminished, and gives place in many specimens to olive-brown ; the ear-coverts are much less rufous ; the black pectoral gorget is much reduced in extent, and the chestnut gorget almost entirely disappears ; the other parts remain the same as in the summer.

Female in summer. The same as the male in winter.

The *female in winter* loses all traces of grey on the head, but does not otherwise differ from the female in summer.

The *young bird* has the head rufous with black centres ; the reddish brown of the adult is replaced by russet ; the ear-coverts are brown mixed with rufous, and both gorgets are absent, the moustachial stripes merely extending along the sides of the neck.

Bill dark fleshy brown, the lower mandible paler ; iris brown ; feet and claws pinkish.

Length 6·5 inches, tail 2·7, wing 2·8, tarsus ·8, bill from gape ·6. The female appears to be of much the same size as the male.

The Grey-headed Bunting is a tolerably common winter visitor to Pegu. I observed it chiefly in the plains on either side of the Pegu Canal. Mr. Hume states that it has also been found at Tonghoo and between that town and Thayetmyo. Mr. Davison found it rare in Tenasserim as far south as Thatone. Being a migrant it will probably be found in every part of British Burmah, except perhaps the most southerly part of Tenasserim.

In winter it is found in the Indo-Burmese countries, South China, and in Northern and Central India. In the summer some birds remain in the North-west Himalayas and breed there. Others retire to North China, Japan and Eastern Siberia.

I observed the Grey-headed Bunting only in the grassy plains near Pegu on the ground, especially in places where the grass had been burnt. It was generally feeding on the grass-seeds which had fallen to the ground. Unlike *E. aureola* it did not appear to frequent the rice-fields.

According to Mr. Hume the nest is generally placed at the foot of a tuft of grass or low bush, or under some large stone. It is a shallow cup made of dry grasses and lined with a little hair. The eggs, generally four in number, are greenish grey marked with reddish brown.

333. EMBERIZA PUSILLA.

THE DWARF BUNTING.

Emberiza pusilla, *Pall. Reis. Russ. Reichs*, iii. p. 697; *Jerd. B. Ind.* ii. p. 376; *Wald. in Bl. B. Burm.* p. 95; *Wardlaw Ramsay, Ibis*, 1877, p. 463; *David et Oust. Ois. Chine*, p. 323; *Dresser, Birds Eur.* iv. p. 235, pl.; *Hume & Dav. S. F.* vi. p. 407; *Anders. Yunnan Exped.* p. 602; *Seebohm, Ibis*, 1878, p. 337; *Hume, S. F.* viii. p. 107; *Brooks, S. F.* viii. p. 488.

Description.—*Male in summer.* A broad band running from the forehead to the nape over the crown light chestnut; a broad band on either side of this black; lores and ear-coverts dark chestnut; a short line over the ear-coverts light chestnut, like the coronal band; upper plumage streaked with black, rufous and grey; wing-coverts brown, edged with rufous; the median coverts more broadly tipped, forming a rufous band; wings brown, margined with rufous-brown; tail brown, the penultimate pair of feathers with a white diagonal bar on the inner web, the outer pair with a larger band extending to both webs; chin and upper throat pale chestnut; lower throat white; breast and flanks white, streaked with black; abdomen, vent and under tail-coverts plain white; the white band on the penultimate pair of tail-feathers is sometimes very small and occasionally absent.

The *male in winter* has the black bands on the head fringed with rufous, and the chestnut on the head is more subdued. It does not appear to undergo any other change.

The *female in summer* is very similar to the male in winter; but it wants the chestnut on the throat, which is wholly white and bounded on either side by a black moustachial streak.

The *female in winter* loses all the chestnut on the head, which becomes dark brown, each feather edged with pale rufous.

Bill horny; legs pale fleshy brown; irides brown. (*Jerdon.*)

Length 5.25 inches, tail 2.4, wing 2.8, tarsus .7, bill from gape .45.

The Dwarf Bunting was procured by Capt. Wardlaw Ramsay in Karennee at various elevations. Mr. Davison got it in Tenasserim on the summit of Mooleyit. I have not observed it in the Pegu Division, nor has it been recorded from Arrakan.

In winter it is found in South China, the Indo-Burmese countries and throughout the whole extent of the Himalayas. It summers in North China and Siberia, ranging into North-eastern Europe and occasionally straggling into Great Britain. Mr. Seebohm observed it in Siberia as high as lat. 71°.

This Bunting, according to Dr. Jerdon, occurs in small flocks in bare spots of ground with low bushes. Mr. Seebohm found the nest in Siberia; it was merely a hole made in the dead leaves, moss and grass on the

ground, thickly and carefully lined with fine dead grass. It contained five eggs, which were pale grey, blotched and spotted with darker and paler grey.

334. EMBERIZA RUTILA.

THE CHESTNUT BUNTING.

Emberiza rutila, *Pall. Reis. Russ. Reichs*, iii. p. 698; *Bl. B. Burm.* p. 95; *David et Oust. Ois. Chine*, p. 331; *Wardlaw Ramsay, Ibis*, 1877, p. 462; *Oates, S. F.* x. p. 234. *Citrinella rutila*, *Hume, S. F.* iii. p. 157. *Euspiza rutila*, *Hume & Dav. S. F.* vi. p. 408; *Hume, S. F.* viii. p. 107.

Description.—*Male in summer.* The whole head and upper breast, as well as the whole upper plumage, including the wing-coverts, chestnut, each feather except those of the rump fringed with greenish; these fringes are liable to be worn off and vary in depth; primaries, secondaries and primary-coverts brown, narrowly edged on the outer webs with olive-brown; tertiaries brown, the outer webs suffused with chestnut; tail brown, edged with olive-brown, occasionally the outer feather has a dash of white on the inner web; breast, abdomen, vent and under tail-coverts deep oil-yellow; flanks greenish brown.

The *male in winter* does not appear to differ from the male in summer.

Female at all seasons. Top of the head, neck, back and scapulars olive-brown, with dark streaks; rump and upper tail-coverts chestnut, the latter duller and tinged with grey; wing-coverts dark brown, edged and tipped with whitish brown; quills dark brown, edged exteriorly with whitish brown; tail plain brown; a dull fulvous-brown supercilium running to the nape; sides of the head fulvous-brown, mottled with brown; cheeks, chin and throat dull fulvous-brown; a narrow, distinct, dark-brown moustachial streak under the cheeks; remainder of lower plumage dull oil-yellow, faintly striated with brown on all the parts except the flanks, where the streaks are very numerous and strong.

The *young male* has only the head and rump chestnut, and the other parts are much as in the female, the brown of the upper parts being richer and tinged with chestnut.

Bill brown; legs and feet flesh-colour.

Length 6·3 inches, tail 2·5, wing 2·9, tarsus ·7, bill from gape ·5.

The Chestnut Bunting occurs in various parts of Burmah as a winter visitor. Mr. Blanford got it at Bassein in Pegu. In the same Division it has been obtained near Rangoon by Mr. Hume, who states that it also occurs in Upper Pegu. Capt. Wardlaw Ramsay says that it is the

common Bunting of the higher Karin hills and that it is also found in the plains of the Tonghoo district. I have never myself met with it. Mr. Davison tells us that it is a visitant to the more northern parts of Tenasserim; and I have seen a specimen shot by Capt. Bingham in the Thoungyeen valley.

In the winter it is found in South China and, according to Dr. Tiraud, in Cochin China; also in the Indo-Burmese countries and the South-eastern Himalayas. It summers in North China and, according to Temminck and Schlegel, also in Japan.

There is nothing particular noted about its habits.

335. EMBERIZA AUREOLA.

THE YELLOW-BREASTED BUNTING.

Emberiza aureola, *Pall. Reis. Russ. Reichs*, ii. p. 711; *Dresser, Birds Eur.* iv. p. 223, pl.; *David et Oust. Ois. Chine*, p. 332; *Anders. Yunnan Exped.* p. 602; *Oates, S. F.* x. p. 234. **Mirafra flavicollis**, *McClell. P. Z. S.* 1839, p. 163. **Emberiza flavogularis**, *Bl. J. A. S. B.* xviii. pp. 86, 811. **Euspiza aureola**, *Jerd. B. Ind.* ii. p. 380; *Hume, S. F.* iii. p. 159; *Bl. & Wald. B. Burm.* p. 94; *Wardlaw Ramsay, Ibis*, 1877, p. 461; *Hume & Dav. S. F.* vi. p. 409; *Hume, S. F.* viii. p. 107; *Scully, S. F.* viii. p. 334; *Bingham, S. F.* ix. p. 193.

Description.—*Male in summer.* Forehead, sides of the head, chin and upper throat black; remainder of the head, back, rump and scapulars rich chestnut, the feathers generally margined with faint yellowish white, which margins, however, soon get abraded and in consequence are absent in some birds; lesser wing-coverts smoky brown; median coverts white; greater coverts chestnut, brownish near the shaft and edged with white near the tip; quills brown, the primaries edged externally with whitish brown, the others with pale chestnut; upper tail-coverts pale rufous-brown; tail brown, edged paler, the outer web of the outer feather white for two thirds of its length from the base and the inner web with a diagonal streak of white; the next feather generally with a small obscure mark of white on the inner web; lower throat, breast and abdomen bright yellow; across the breast a well-defined band of deep-chestnut feathers slightly fringed with black; sides of the body yellow, with brown streaks; vent and under tail-coverts pale yellow, the latter with a few obscure streaks.

Male in winter. There is no black on the head; the whole upper plumage is chestnut, with very broad greyish-yellow fringes; the ear-coverts are

purplish brown, marked with yellow; the chin and throat are deep yellow, like the breast and abdomen; the pectoral band becomes obscure, owing to the feathers being fringed with yellow. The other parts do not change in winter, except that the greater wing-coverts are edged with pale rufous instead of white.

The *female at all seasons* is the same. The head is chestnut-brown, with dark-brown streaks; the nape and back of the neck olive-brown, with indistinct brown streaks and the centres of the feathers tinged with chestnut; the back and scapulars olive-brown, with broad distinct dark-brown streaks; the rump pale chestnut, edged with grey; the upper tail-coverts brown, centred darker; the lesser wing-coverts brown; the median ones brown, very broadly tipped with white; the greater coverts and all the quills brown, edged on the outer webs with pale rufous-brown; the tail as in the male; a broad supercilium reaching to the nape yellowish white; sides of the head mixed brown and yellowish white; chin and throat whitish; breast, sides of neck and abdomen bright yellow, tinged with brown across the breast, which is also faintly streaked with brown; flanks faint yellow, streaked with brown; vent and under tail-coverts pale yellow, the latter indistinctly streaked.

The *young bird* is very similar to the female, but has no chestnut on the head and rump and the whole breast is boldly streaked with brown.

Iris rich brown; upper mandible dark brown, lower fleshy brown; feet and claws pinkish brown.

Length 6·2 inches, tail 2·4, wing 3, tarsus ·85, bill from gape ·55. The female is rather smaller.

The Yellow-breasted Bunting is a common winter visitor to the whole of Burmah. It arrives in October and leaves in May, in which month many of the males are in full breeding-plumage.

This Bunting has a very wide range. In winter it is found in China, Cochin China, Siam and the Malay peninsula. Westwards it extends through the Indo-Burmese countries into the South-eastern Himalayas and is even found in Southern Europe. In summer it occurs throughout Northern Asia and Europe from Russia to Kamtschatka.

This bird may easily be recognized when flying by the white patch on the wing. On first arriving in Burmah, it is noticed chiefly in the larger plains of grass; but as soon as the rice begins to ripen, it comes down in immense flocks and feeds on this grain. Their number is incredible, and the damage they cause to the cultivator must be very serious. When the crops have been reaped, they continue picking up grain in the stubble; and even after this has been burnt they steadily search the ground, and the numerous cracks caused by the sun, for the half-burnt grains of rice. Towards March this supply fails them, and they then adjourn to the neighbourhood of villages, where they pick up what food they can find.

The nest is said to be placed on or near the ground. It is made of dry bents and lined with a little hair. The eggs, four to six in number, are greenish, clouded with purplish grey and marked with some dark scrawls.

Genus MELOPHUS, *Swains.*

336. MELOPHUS MELANICTERUS.

THE CRESTED BUNTING.

Fringilla melanictera, *Gm. Syst. Nat.* i. p. 910. **Emberiza cristata**, *Vigors, P. Z. S.* 1831, p. 35. **Melophus melanicterus**, *Jerd. B. Ind.* ii. p. 381; *Hume, Nests and Eggs*, p. 467; *Bl. B. Burm.* p. 95; *Butler, S. F.* iii. p. 498; *Wardlaw Ramsay, Ibis*, 1877, p. 462; *David et Oust. Ois. Chine*, p. 333; *Hume & Dav. S. F.* vi. p. 409; *Anders. Yunnan Exped.* p. 604; *Hume, S. F.* vii. p. 517, viii. p. 107; *Scully, S. F.* viii. p. 334; *Hume, S. F.* x. p. 234 (note).

Description.—*Male.* The whole plumage deep black glossed with blue, turning to dull glossless brownish black on the centre of the abdomen, vent and under tail-coverts, the latter also slightly tipped with cinnamon; lesser wing-coverts glossy black; the greater wing-coverts and primary-coverts cinnamon; wings cinnamon, each feather tipped with pale brown and the brown extending as a broad margin on the inner webs of the tertiaries; tail cinnamon, tipped with pale brown, the tippings obsolete or absent on the outer pair of feathers.

The *female* is different to the male. The crest is shorter and not very apparent in some specimens; the whole upper plumage is dark brown, each feather edged with olive-brown, frequently with a tinge of rufous; the lesser wing-coverts are dark brown, narrowly edged with pale rufous; the median and greater coverts are dark brown, very broadly edged with cinnamon; the primaries and secondaries have the outer webs blackish, edged exteriorly with pale cinnamon; the inner webs are cinnamon, broadly tipped with dark brown; the tertiaries are dark brown, edged with pale cinnamon on the outer webs; the outer tail-feathers are cinnamon, with a broad band of brown on the inner web; the other feathers are brown, with a narrow margin of pale cinnamon on the outer webs, and the fifth pair from the middle have also a streak of cinnamon on the inner webs; the ear-coverts and cheeks are dark brown, the former tipped with olive-brown; the lower plumage varies from a dull buff to a yellowish brown, streaked and mottled, especially on the throat and breast, with dark brown; and the vent and under tail-coverts are brighter and sometimes tinged with rufescent.

Young males are probably at first like the females; and they appear to

assume the full plumage during the first year. At the final stage the black feathers are narrowly margined with olive-brown and the under tail-coverts are cinnamon.

Bill dusky, blackish above and fleshy at base of lower mandible; irides dark brown; feet fleshy brown, the toes darker; claws blackish, pale at tips. (*Scully*.)

Length 6·5 inches, tail 2·8, wing 3·2, tarsus ·75, bill from gape ·6, crest about ·8. The female is rather smaller.

The Crested Bunting is said by Mr. Blyth to occur both in Arrakan and Pegu; and Mr. Hume states that he has received it from the former Division. I have never myself met with it in Pegu. Capt. Wardlaw Ramsay procured it in the Karin hills up to 3000 feet, and also in Karennee; it appears to have been common in both these localities. Mr. Davison observed it at Beeling in Tenasserim, but on one occasion only.

This Bunting is found in South China, Siam and the Indo-Burmese countries, extending along the Himalayas and over a great part of India.

Capt. Wardlaw Ramsay states that "this is by far the commonest Bunting in the Karennee country, where the rocky scrub-covered hill-sides seem to suit it. It is particularly fond of the neighbourhood of tiny streams covered over with bushes in the open country. Their note, which is uttered on the wing, is a rather pleasing whistle, quite unlike that of any other Bunting."

This bird appears to be more or less a resident species wherever it occurs. In India the nest, which is cup-shaped in form and chiefly made of grass, is placed in holes of banks or walls, on the ground under a clod, or in a thick tuft of grass. The eggs, which are three or four in number, are greenish white, marked with reddish or purplish brown.

Family PLOCEIDÆ.

Genus PLOCEUS, *Cuv.*

337. PLOCEUS BAYA.

THE BAYA.

Ploceus baya, *Bl. J. A. S. B.* xiii. p. 945; *Jerd. B. Ind.* ii. p. 343 (part.); *Blanf. J. A. S. B.* xli. pt. ii. p. 167; *Hume, Nests and Eggs*, p. 436 (part.); *id. S. F.* iii. p. 153; *Hume & Dav. S. F.* vi. p. 398; *Hume, S. F.* viii. p. 106. **Ploceus philippinus**, *apud Bl. B. Burm.* p. 92; *Oates, S. F.* v. p. 160.

Description.—*Male in summer.* Forehead and top of head yellow; the whole upper plumage with the wings and tail dark brown edged with

fulvous, the rump and upper tail-coverts being almost uniform fulvous; sides of the head, chin and throat blackish brown; breast and all the lower plumage rusty, brightest on the breast and palest on the abdomen. The shade of brown on the throat and sides of the head varies much.

Bill black; inside of mouth flesh-colour; eyelid grey; iris dark brown; legs flesh-colour; claws pinkish horn-colour.

Female in summer and both sexes in winter. The forehead and top of the head, instead of being yellow, are brown with fulvous edgings like the upper plumage; there is a rufous supercilium; the sides of the head, the chin and throat are pale fulvous; the remainder of the lower plumage is similar to that of the male in summer plumage.

Bill yellowish horn-colour, the lower mandible paler than the upper; other parts much as above.

Length 5·7 inches, tail 1·9, wing 2·8, tarsus ·9, bill from gape ·7. The female is rather smaller.

The change to summer plumage is accomplished in April, and that to winter plumage in October.

It was thought for many years that the Weaver-birds of Continental India and of Burmah were identical. Mr. Blanford was, I believe, the first naturalist to draw attention to their distinctness. The Indian bird, the true *Loxia philippina* of Linnæus, may be recognized by its smaller size and by the male in breeding-plumage having the breast suffused with yellow.

Ploceus megarhynchus, Hume, does not appear to me to differ from the Burmese form. I have, however, been able to examine only one specimen, and I am consequently unable to speak with certainty on this point.

The well-known Baya is found abundantly over the plains and lower hills of the whole of British Burmah, where it is a constant resident.

It extends down the Malay peninsula, and has been found in Sumatra. Dr. Tiraud states that it is common in Cochin China. It ranges through the Indo-Burmese countries into Bengal, Sikhim, and Nipal. In the peninsula of India it is represented by the allied *P. philippinus*.

The Baya is one of the commonest birds of the country, and in the summer months, when the head of the male is yellow, one of the most conspicuous. The Weaver-birds at all seasons of the year associate in large flocks. In the winter they are little noticed; for they are then found in the jungles and paddy-fields consorting with Buntings and Sparrows. In the summer, however, they are usually found near the habitations of man, frequently selecting the thatched eaves of a house from which to suspend their beautiful and remarkable nests.

The nest, which is made entirely of grass, is a large flask-shaped structure, admittance to which is gained through a long and narrow tube, sometimes 18 inches in length. This is not the place to describe in detail

the mode of construction of this marvellous structure ; a full account of it will be found in Dr. Jerdon's work. The breeding-season commences in April, and from ten to fifty pairs of birds nest in company. They either select the eaves of a thatched building, frequently nesting inside the verandah itself, or the pendent branches of a thorny tree. In this latter case they seem to prefer a tree the branches of which grow over the water. The eggs are two or three in number and pure white.

338. PLOCEUS MANYAR.

THE STRIATED WEAVER-BIRD.

Fringilla manyar, *Horsf. Trans. Linn. Soc.* xiii. p. 160; *Hume, S. F.* vi. p. 399 (footnote). **Euplectes striatus**, *Bl. J. A. S. B.* xi. p. 873. **Ploceus manyar**, *Jerd. B. Ind.* ii. p. 348; *Hume, Nests and Eggs*, p. 440; *Bl. B. Burm.* p. 92; *Oates, S. F.* v. p. 160; *Hume, S. F.* viii. p. 106; *Legge, Birds Ceylon*, p. 646.

Description.—*Male in summer.* Forehead and top of head yellow ; throat, cheeks, ear-coverts and sides of neck black or brownish black ; lower plumage fulvous, each feather striated with black down the centre, except on the abdomen and under tail-coverts ; upper plumage dark brown edged with pale fulvous ; wings and tail brown edged with yellowish ; the throat is sometimes coloured a pale brown, and the intensity of the fulvous on the lower parts varies much.

Bill bluish black, paler at the gape ; iris brown ; legs flesh-colour ; claws pinkish horn.

Female in summer and both sexes in winter. Whole upper plumage dark brown with fulvous edgings, very narrow on the head and broad on the back ; a supercilium and a spot behind the ear-coverts yellow ; a line under the eye and a short moustachial streak pale yellow ; ear-coverts and cheeks dusky ; throat blackish in some, dusky in others, and in many whitish, each feather being centred black ; lower plumage fulvous, with dark brown striations on the breast and flanks ; wings and tail brown edged with fulvous.

Bill yellowish horn-colour, other parts as above.

Length 5·7 inches, tail 1·8, wing 2·7, tarsus ·8, bill from gape 7. The female is rather smaller.

Although Horsfield's description of *Fringilla manyar* is unsatisfactory, all mention of the striations on the breast being omitted, there is little doubt but he referred to the present species under the above name. Specimens of this Weaver-bird procured by him in Java are now in the British Museum. *P. baya*, so far as is known, does not occur in Java.

The Striated Weaver-bird is spread throughout British Burmah wherever

there are grassy plains. Mr. Blyth states that it occurs in Arrakan. In Pegu I have never failed to meet with it in all suitable localities. In Tenasserim, however, according to Mr. Davison, it is confined to the tract of country between the Sittang and the Salween rivers.

Although not yet recorded from any part of the Malay peninsula, it is known to occur in Siam, Cochin China and in the island of Java.

To the north it is common throughout the Indo-Burmese countries, and it is found over the whole of India, to the west as far as Sindh and to the south as far as Ceylon.

The Striated Weaver-bird is quite as abundant as the Baya, but, owing to its habits, is not so often seen. At all seasons of the year it is a bird of the jungles, seldom coming into the neighbourhood of villages except in the winter, when it may be seen in the same flocks with Buntings and Bayas feeding on grain. In the summer they adhere to grassy localities. In April or May they commence to build their nests. The structure is suspended from the tips of four or more leaves of elephant-grass, which are bound together and incorporated into the nest. It is bottle-shaped, but less skilfully built than the nest of the Baya, the tube leading to the entrance being very short and very often absent altogether. The eggs are white and usually three in number.

339. PLOCEUS BENGALENSIS.

THE BLACK-BREASTED WEAVER-BIRD.

Loxia bengalensis, *Linn. Syst. Nat.* i. p. 305. **Ploceus bengalensis**, *Jerd. B. Ind.* ii. p. 349; *Hume, Nests and Eggs*, p. 441; *Bl. B. Burm.* p. 92; *Hume, S. F.* viii. p. 107; *Oates, S. F.* x. p. 231.

Description.—*Male in summer.* Forehead and top of head brilliant yellow; throat, cheeks and ear-coverts white, sullied with brown on the latter two parts; breast and sides of neck black; lower breast and sides of the body pale brownish, with darker central streaks to the feathers; abdomen and under tail-coverts sullied white; upper neck plain brown; back and scapulars dark brown with whitish edges; rump and upper tail-coverts pale hair-brown; tail brown, feebly margined lighter; wings brown, margined with yellowish white, except the third, fourth, fifth and sixth primaries, which are margined along a portion of their length with bright yellow.

Female in summer and both sexes in winter. Chin and throat white tinged with yellow; a supercilium, a spot at the base of the lower mandible and one behind the ear-coverts yellow; ear-coverts, head and neck

brown, the centres of the feathers darker; back and scapulars dark brown with broad fulvous edges; breast and sides of neck black, more or less interrupted or partially absent, the feathers in many cases being broadly edged with fulvous; remainder of lower plumage fulvous-white; wings and tail dark brown edged with fulvous.

The amount of yellow on the throat and black on the breast vary considerably, probably with age. There appears to be always some black on the breast; it is never quite absent.

Bill pearly white; iris light brown; legs flesh-colour.

Length 5·5 inches, tail 1·8, wing 2·75, tarsus ·8, bill from gape ·65. The female is rather smaller.

I insert this species in my catalogue on the authority of Mr. Blanford, who states (*Ibis*, 1870, p. 469) that he procured it at Thayetmyo. It has not been recorded from any other part of Burmah, and I never myself met with it at Thayetmyo.

Mr. Blanford procured this species also at Ava in Native Burmah, and it occurs in Cachar and Eastern Bengal. It appears to be spread over Northern and Central India as far west as Sindh.

This species appears to be very local and rare. There is very little on record about it; but its habits, however, are not likely to differ from those of *P. baya*. The nest, according to Dr. Jerdon, is non-pensile, and has no tubular entrance or only a very short one. Those which he observed were built in bushes in a grassy churr overflowed during the rains.

Genus PLOCEËLLA, *Oates**.

340. PLOCEËLLA JAVANENSIS.

THE GOLDEN WEAVER-BIRD.

Loxia javanensis, *Less. Tr. d'Orn.* p. 446; *Hume, S. F.* vi. p. 399 (footnote).

Fringilla philippinus (*Linn.*), *apud Horsf. Trans. L. Soc.* xiii. p. 160. *Plo-*

ceus hypoxanthus (*Daud.*), *Hume, Nests and Eggs*, p. 442; *id. S. F.* iii. p. 154.

Ploceus javanensis, *Bl. B. Burm.* p. 91. *Ploceëlla javanensis*, *Oates, S. F.*

v. p. 160; *Hume, S. F.* viii. p. 107; *Oates, S. F.* x. p. 231. *Ploceëlla chrysea*, *Hume, S. F.* vi. p. 399 (note).

Description.—*Male in summer.* Chin, throat, cheeks and ear-coverts black; forehead, top of head and lower plumage bright yellow; back and scapulars black, each feather broadly margined with yellow; rump and

* *Hume's 'Nests and Eggs,'* p. 443; *S. F.* x. p. 232.

upper tail-coverts bright yellow ; wings and tail brown margined with yellowish white.

Bill black, the underside of the lower mandible dark horn ; inside of the mouth flesh-colour ; iris brown ; eyelids grey ; legs pinkish flesh-colour ; claws horn-colour.

Female in summer and both sexes in winter. Whole lower plumage, with the cheeks and a supercilium, rusty, paling on the abdomen ; upper plumage brown, with broad yellowish-brown margins ; tail and wings brown, margined with yellowish white.

Bill fleshy brown, dark on the upper and pale on the lower mandible ; other parts as above.

Length 5·7 inches, tail 2·3, wing 2·7, tarsus ·8, bill from gape ·55. The female is rather smaller.

The bird figured by Sparrmann (Mus. Carls. iii. pl. 71) cannot possibly refer to this species. The plate represents a bird with the upper plumage green and with the forehead, cheeks and lower plumage yellowish.

Lesson's description is not good, but it obviously refers to the present species. His bird, moreover, came from Java, where no other Weaver-bird of the colour described by him exists.

I have compared Burmese birds with others from Java and find them to be identical.

The Golden Weaver-bird is of rather local distribution in Burmah, being found only in that portion of the Pegu Division which lies between the Irrawaddy and Sittang rivers. It inhabits grassy plains and paddy-land and is never found in hilly country.

Mr. Blanford met with it at Mandelay, nearly 300 miles above the frontier at Thayetmyo.

This bird is found in Siam and Cochin China and also in the islands of Java and Lombock.

The stronghold of the Golden Weaver-bird lies in the large plains of Southern Pegu. Here it is extremely abundant. In the winter these birds associate with Bayas and Striated Weaver-birds and feed on the ripening paddy. In the summer months they break up into smaller groups and keep apart from the other species. They prefer grass-land to any other, but a few may often be seen even in gardens. The nesting-season commences at the approach of the rains. The nest is a cylindrical structure made entirely of grass with an opening at the side. The exterior of the nest, instead of being smooth as in the nests of the other Weaver-birds, is very rough, consisting of a series of loops and sharp angles. It is attached to several stalks of elephant-grass, by which it is supported. I have occasionally seen these birds select a prickly tree and cover it with their nests but this is the case I think only when elephant-grass is scarce. During the breeding-season they seem devoid of fear and place their nests in the most

open situations, such as the grass growing on the banks of a frequented stream where every boat that passes almost touches the nest. The eggs are either two or three in number and they vary very much in colour: some are white; others are greenish white, grey or purplish; and while some are unmarked, the majority are speckled with grey, greenish brown or neutral tint.

Genus *AMADINA*, *Swains.*

341. AMADINA ACUTICAUDA.

HODGSON'S MUNIA.

Munia acuticauda, *Hodgs. As. Res.* xix. p. 153; *Jerd. B. Ind.* ii. p. 356; *Hume, Nests and Eggs*, p. 450; *Bl. & Wald. B. Burm.* p. 93; *David et Oust. Ois. Chine*, p. 343. **Amadina acuticauda**, *Hume, S. F.* viii. p. 107; *Scully, S. F.* viii. p. 333.

Description.—*Male and female.* Rump white; upper plumage deep brown, the shafts of all the feathers, except those of the forehead, whitish; wing very dark brown; tail nearly black; cheeks, chin and throat black; ear-coverts fulvous, with lighter centres to the feathers; breast and sides of the neck dark brown, the feathers pale-shafted and with fulvous edgings; abdomen and sides white, with indistinct arrowhead-shaped marks of brown; flanks and under tail-coverts fulvous, mottled with fulvous-white and the shafts pale; under wing-coverts buff.

Upper mandible blackish, the lower one plumbeous; iris dark brown; legs plumbeous; claws horny.

Length 4·5 inches, tail 1·8, wing 2, tarsus ·55, bill ·4. The female is of about the same size.

Hodgson's Munia is a comparatively rare bird in Burmah. Mr. Blyth records it from Arrakan. I have found it in various parts of Pegu in pairs or singly, and it appears to be a constant resident. Capt. Wardlaw Ramsay met with it on the Tonghoo hills, and Mr. Davison procured it in all parts of Tenasserim except on the higher hills.

This Munia extends down the Malay peninsula as far as Singapore, and it is found in Cochin China, Siam and throughout Southern China. It ranges through the Indo-Burmese countries into the Himalayas, where it occurs as far as Nipal.

This bird is found in pairs through the summer and in small flocks in winter. They frequent well-wooded localities and feed on minute seeds. The nest is placed in shrubs and small trees and is a large globular structure made of grass. The eggs, which are five or six in number, are white.

342. AMADINA STRIATA.

THE WHITE-BACKED MUNIA.

Loxia striata, *Linn. Syst. Nat.* i. p. 306. **Fringilla leuconota**, *Temm. Pl. Col.* 500. f. 2. **Munia striata**, *Jerd. B. Ind.* ii. p. 356; *Hume, Nests and Eggs*, p. 448; *Wald. Ibis*, 1874, p. 144; *Legge, Birds Ceylon*, p. 660. **Munia leuconota**, *Bl. B. Burm.* p. 93. **Amadina striata**, *Hume, S. F.* viii. p. 107.

Description.—*Male and female.* Rump white; whole upper plumage rich dark brown, darkest on the forehead, and all the feathers, except those on the forehead, with conspicuous whitish shafts; tail and wings very dark brown; ear-coverts and sides of neck the same brown as the upper plumage with white shafts; cheeks, chin, throat and upper breast plain dark blackish brown; lower breast, abdomen and sides pure white; flanks brown, with light shafts; under tail-coverts darker brown, with less conspicuous shaft-lines.

Upper mandible blackish, the lower one bluish; iris reddish brown; legs greenish horny.

Length 4·5 inches, tail 1·6, wing 2, tarsus ·5, bill ·4. The female is of much the same size.

I insert this species in my work on the authority of Mr. Blyth, who states that it occurs in Arrakan, and in the British Museum there is also a specimen from this part of Burmah. I am not aware that it has been met with in any other part of British Burmah.

It extends into India and is found over the whole peninsula down to Ceylon. In the Andamans and Nicobar Islands it is replaced by closely allied races, which have been named respectively *A. fumigata*, Wald., and *A. semistriata*, Hume.

The habits of this species do not differ much, if at all, from those of the preceding bird. It is found in well-wooded parts of the country, in the neighbourhood of houses and on roadsides. It builds the usual, massive, globular nest of grass in small trees and lays white eggs.

343. *AMADINA ATRICAPILLA*.

THE CHESTNUT-BELLIED MUNIA.

Coccothraustes sinensis, *Briss. Orn.* iii. p. 235. *Loxia atricapilla*, *Vieill. Ois. Chant.* pl. 53. *Munia rubronigra*, *Hodgs. As. Res.* xix. p. 153; *Jerd. B. Ind.* ii. p. 353; *Legge, Birds Ceylon*, p. 625; *Bl. B. Burm.* p. 92; *Oates, S. F.* v. p. 160; *Hume & Dav. S. F.* vi. p. 401 (footnote). *Munia atricapilla*, *Hume, Nests and Eggs*, p. 444; *Salvad. Ucc. Born.* p. 265; *Wald. Trans. Z. Soc.* ix. p. 208. *Munia sinensis*, *David et Oust. Ois. Chine*, p. 342. *Amadina rubronigra*, *Hume, S. F.* viii. p. 107; *Scully, S. F.* viii. p. 332.

Description.—*Male and female.* Head, neck and breast black; remainder of the plumage chestnut, turning to glistening fulvous on the rump, upper tail-coverts and the outer edges of the tail-feathers; centre of the abdomen, vent and under tail-coverts black.

The *young* are uniform pale fulvous, lighter below than above.

Bill leaden blue; iris dark brown; legs dark plumbeous.

Length 4·5 inches, tail 1·5, wing 2·1, tarsus ·55, bill from gape ·45. The female is of about the same size.

It seems to me impossible to separate as a distinct species those birds which are said to have no black on the abdomen. This supposed species is reputed to occur in China, Malacca and Pinang. According to Mons. Oustalet, however, Chinese specimens which came under his inspection had the abdomen brownish, the males especially. Dr. Stoliczka notes of the birds he obtained at Pinang that the abdomen was black. Mr. Swinhoe (*Ibis*, 1865, p. 356) keeps the two species distinct; but subsequently (*P. Z. S.* 1871, p. 384) he adds Hodgson's name as a synonym of *M. sinensis*. I may add that I have never myself seen a bird without black on the abdomen.

The Chestnut-bellied Munia occurs in all parts of the Province and is a very abundant resident species. Mr. Davison remarks that in Tenasserim it appears to be a seasonal visitor, but I should think this to be most unlikely.

Out of Burmah it has a wide range. It occurs throughout the Malay peninsula and also in the islands of Sumatra and Borneo; it is found in South-west China, Siam, Cochin China, the Indo-Burmese countries and in the whole peninsula of India down to Ceylon.

This Munia affects grass-land and is not found in the wooded parts of the country except on their outskirts. It is generally seen in small flocks of five to ten. The food of this species consists of grain and seeds. The nesting-season extends from June to August or September. The nest is placed in a clump of elephant-grass, generally where inundated, and is supported by four or five stalks. It is a large globular mass of grass with

a very small entrance near the top. The number of eggs is usually five and they are white. The nest of this bird is very often tenanted by a snake, and great care should be taken not to insert the hand without examination.

344. AMADINA LEUCOGASTRA.

THE WHITE-BELLIED MUNIA.

Amadina leucogastra, *Bl. J. A. S. B.* xv. p. 286 (footnote) ; *Hume, S. F.* viii. p. 107.

Munia leucogastra, *Salvad. Ucc. Born.* p. 267 ; *Davison, S. F.* v. p. 460 ; *Hume & Dav. S. F.* vi. p. 402.

Description.—*Male and female.* Cheeks, ear-coverts, throat, breast, under tail-coverts and sides of body deep brownish black, paler on the latter parts ; abdomen white, the white forming a sharp angle on the breast ; upper plumage chocolate-brown, all the feathers, except those of the head, being white-shafted ; upper tail-coverts black ; middle pair of tail-feathers shiny fulvous, the others dark brown with fulvous edges ; under wing-coverts white.

Legs and feet dusky plumbeous or dull smalt-blue ; lower mandible dull smalt-, or pale, blue ; upper mandible brownish black or black ; irides dark brown. (*Davison.*)

Length 4·5 inches, tail 1·8, wing 1·9, tarsus ·55, bill from gape ·45. The female appears to be of about the same size as the male.

The White-bellied Munia occurs in the extreme south of Tenasserim, where Mr. Davison found it nesting.

It extends down the Malay peninsula and is found in Borneo.

Mr. Davison remarks that this bird is more a frequenter of forests than the other species. He found the nest near Malewoon on the 25th of April, a globular structure made of grass and bamboo-leaves and placed in the fork of a sapling about 7 feet from the ground. It contained a single white egg. It, however, probably lays five or six eggs like the other species.

345. AMADINA PUNCTULATA.

THE BARRED MUNIA.

Loxia punctulata, *Linn. Syst. Nat.* i. p. 302. **Loxia undulata**, *Lath. Ind. Orn.* i. p. 387. **Munia undulata**, *Jerd. B. Ind.* ii. p. 354. **Munia punctulata**, *Hume, Nests and Eggs*, p. 444; *Legge, Birds Ceylon*, p. 656. **Munia subundulata**, *Godw.-Aust. P. Z. S.* 1874, p. 48; *Hume, S. F.* iii. p. 398; *Oates, S. F.* v. p. 162. **Munia superstriata**, *Hume, S. F.* ii. p. 481 (footnote); *Hume & Dav. S. F.* vi. p. 402. **Munia punctularia**, *Bl. & Wald. B. Burm.* p. 93. **Lonchura punctulata**, *Hume, S. F.* iii. p. 156. **Munia inglisi**, *Hume, S. F.* v. p. 39. **Amadina punctulata**, **A. subundulata**, **A. superstriata** et **A. inglisi**, *Hume, S. F.* viii. p. 107. **Amadina superstriata**, *Oates & Hume, S. F.* x. p. 232.

Description.—*Male and female.* Chin, throat and sides of the head rich chestnut; lower plumage white, all the feathers except those on the centre of the abdomen with zigzag marks of brownish fulvous; upper plumage, as far down as the rump, chocolate-brown, the shafts more or less pale; rump barred with whitish; tail brown; upper tail-coverts and the edges of the tail-feathers glistening yellow-fulvous; primaries and secondaries brown, the edges and the tertiaries of the same colour as the upper plumage; under wing-coverts buff.

Bill bluish black, paler and somewhat plumbeous on the lower mandible; iris deep reddish brown; legs plumbeous; claws horny.

Length 4·7 inches, tail 1·7, wing 2·1, tarsus ·6, bill from gape ·45. The female is of the same size.

I cannot separate the Burmese and Eastern-Bengal birds from the birds inhabiting India. Indeed quite recently Mr. Hume has himself suppressed his own two species, *A. superstriata* and *A. inglisi*, and I think that Colonel Godwin-Austen's species, *A. subundulata*, cannot be maintained.

A. nisoria, from Malacca and Java, is a good and satisfactory species, which may be recognized by the upper tail-coverts being always grey. *A. topela*, from China, is likewise a very satisfactory species or race, the upper plumage being like that of the Indian bird, but the tail tinged with green and the underparts very indistinctly barred.

The Barred Munia is one of the commonest birds of British Burmah, being found in Arrakan, Pegu and in Tenasserim as far down as Tavoy.

It extends north throughout all the Indo-Burmese countries, and it is spread over the whole of India, as far west at least as Mount Aboo and south to Ceylon.

Mr. Blyth states that this species is found in Siam. The species which inhabits Cochin China, however, is stated by Dr. Tiraud to be *A. topela*.

This pretty and familiar bird frequents gardens, compounds and tolerably well-wooded localities not far from villages. In summer it is

seen in pairs, but in winter in considerable flocks; it makes a massive globular nest in small trees and shrubs and lays five or six white eggs. Occasionally it places its nest in the thatch of a building. The nest may be found at almost all periods of the year, but the majority of the birds build during the rains.

Genus PADDA, *Reich.*

PADDA ORYZIVORA.

THE JAVA SPARROW.

Loxia oryzivora, *Linn. Syst. Nat.* i. p. 302. **Padda oryzivora**, *Salvad. Ucc. Born.* p. 263; *Hume, Nests and Eggs*, p. 454; *Bl. B. Burm.* p. 92; *David et Oust. Ois. Chine*, p. 344; *Hume & Dav. S. F.* vi. p. 403; *Legge, Birds Ceylon*, p. 646. **Amadina oryzivora**, *Hume, S. F.* viii. p. 107.

Description.—*Male and female.* Cheeks and ear-coverts white; chin, throat, a line bordering the ear-coverts, the forehead and the whole top of the head black; neck, breast, upper abdomen, back, scapulars and wings bluish grey; rump, upper tail-coverts and tail black; abdomen, sides, thighs and vent vinous, paler down the middle; under tail-coverts white.

Young bird. Top of head and upper back brown; chin, throat, ear-coverts and cheeks buffy white; sides of neck and lower plumage fulvous, darker on the breast; lower back and rump bluish grey; upper tail-coverts and tail black; primaries brown; tertiaries and all the coverts fulvous.

Legs and feet a pale fleshy pink; the bill dark fleshy or rose pink, darkest at the base and shading towards tip to a delicate rosy white; the orbital skin and eyelids sometimes a dark reddish, sometimes a rosy pink; the irides dull lake. (*Davison.*)

Length 5·8 inches, tail 2, wing 2·75, tarsus ·7, bill from gape ·55. The female is of much the same size.

I insert this bird on the authority of Mr. Blyth, who states that it was procured in Mergui by Major Berdmore. Mr. Davison did not meet with it in Tenasserim; and in any case it can hardly be considered a true inhabitant of Burmah, although it is probable that some years hence it may be quite a common bird in the jungles, as it is in fact in parts of China and Japan, Cochin China, Siam, the islands of the Malay archipelago, the Malay peninsula, Madras, the Mauritius, the Zanzibar coast and other localities. It is a bird which is easily kept in captivity, and it is consequently carried about by sailors and others from port to port. Being very hardy it becomes acclimatized, and rapidly increases in numbers. Its true home appears to be Java.

Genus ERYTHRURA, *Swains.*

346. ERYTHRURA PRASINA.

THE GREEN MUNIA.

Fringilla prasina, *Sparrm. Mus. Carls.* t. 72, 73. **Erythrura prasina**, *Salvad. Ucc. Born.* p. 268; *Hume & Dav. S. F.* vi. p. 405; *Hume, S. F.* viii. p. 107.

Description.—*Male.* The forehead, the cheeks, the feathers round the eye, the ear-coverts, chin and throat blue; top of head, sides of neck, back, wing-coverts and tertiaries green; rump, upper tail-coverts and middle pair of tail-feathers crimson; other feathers of the tail brown; abdomen crimson; sides of body, vent and under tail-coverts buff; primaries and secondaries brown edged with green.

Female. The whole upper plumage green, except the tail-coverts and central tail-feathers, which are red, but duller than in the male; the whole lower plumage fulvous, tinged with green on the throat, breast and flanks. In some females there is a tinge of blue on those parts which are blue in the male. There is no trace of crimson on the lower surface.

Young birds, according to Mr. Hume, have the crimson of the upper parts replaced by yellow, and the abdomen is gamboge-yellow instead of crimson.

Legs, feet and claws fleshy pink, the bill black, and the irides dark brown. (*Davison.*)

Length 6 inches, tail 2·75, wing 2·3, tarsus ·6, bill from gape ·58. The female is as large as the male, but has the tail only about 1·6 inch long; this difference is caused solely by the middle rectrices, all the others remaining the same as in the male.

The Green Munia was observed in the extreme south of Tenasserim by Mr. Davison, who states that it is a visitor during the rice-harvest to the neighbourhood of the Pakchan.

It has been found at Salangore in the Malay peninsula, and it extends to Sumatra, Java and Borneo.

Mr. Davison says:—"I first met with this lovely species at the village of Bopyin, where I found it associating with flocks of *Munia acuticauda* and feeding in the rice-fields; they were very shy and, on being fired at, immediately retreated to the dense bamboo-jungles surrounding the fields. Their note is very similar to that of the *Munias*, and is uttered both when seated and flying; they have also a soft twittering note, which they continually utter when roosting."

Genus *ESTRILDA*, *Swains.*347. *ESTRILDA PUNICEA.*

HORSFIELD'S WAXBILL.

Fringilla punicea, *Horsf. Trans. Linn. Soc.* xiii. p. 160. **Estrela flavidiventris**, *Wallace, P. Z. S.* 1863, p. 495; *Wardlaw Ramsay, Ibis*, 1877, p. 461; *Hume, S. F.* viii. p. 107; *Oates, S. F.* x. p. 232. **Astrilda amandava** (*L.*), *Bl. B. Burm.* p. 93. **Estrela amandava** (*L.*), *Oates, S. F.* iii. p. 342. **Estrilda burmannica**, *Hume, S. F.* iv. p. 484; *Oates, S. F.* v. p. 163.

Description.—*Male.* Sides of the face, chin, throat, breast and sides of neck crimson, the two latter parts speckled with white; sides of the body pale red much spotted with white; belly and vent yellowish red: the under tail-coverts vary in colour; in some, the centres of the feathers are whitish tinged with pink, the edges blackish brown and the tips maroon; in others the feathers are uniform blackish brown: forehead and top of head greenish, each feather broadly tipped with crimson; upper surface of body pale greenish washed with red; the rump with short transverse lines or elongated spots of white; upper tail-coverts crimson spotted with white; tail black, the four outer pairs of feathers tipped white; the upper series of small wing-coverts plain brown; the second and third series brown, each feather with a terminal spot of white; quills plain brown, the tertiaries with a terminal spot of white.

Female. Sides of face and neck and upper surface from bill to rump hair-brown; upper tail-coverts dull crimson, generally uniform, but tipped with white in some; tail blackish brown, the two outer pairs of feathers with the terminal half of the outer web broadly edged with white; the next two pairs merely tipped with white; chin, throat, breast and flanks greyish yellow; abdomen and vent saffron-yellow; wings brown, each of the feathers of the tertiaries and greater coverts with a white spot at the tip; under tail-coverts same as the abdomen, but paler, and in some females a few of the feathers have mesial black streaks.

Young. Nestlings assume the female plumage as above described. In April the change in male birds commences by the assumption of a few red feathers over the lores and eyes. By May, the head and breast have become red but not completely so, and the abdomen acquires a tinge of red. In June, some birds are still very backward, as also a few in July; but the majority by this month are in full adult male plumage. In August no immature birds are to be seen.

The adult plumage, when once assumed, is not subject to seasonal variation. Bill deep red; the posterior half of culmen black; iris crimson; eye-

lids purpurescent; inside of mouth salmon-colour; legs flesh-colour; claws horny.

Length 4 inches, tail 1·5, wing 1·8, tarsus ·58, bill from gape ·36. The female is a trifle smaller.

Horsfield's type of *F. punicea*, now in the British Museum, does not appear to me to differ in any way from Mr. Wallace's specimens from Flores nor from the Burmese birds.

The present species differs from the allied *E. amandava* in having the lower plumage in both sexes a clear saffron- or reddish yellow instead of a blackish brown. The white spots on the upper plumage are more numerous and the crimson more vivid.

I collected these birds during every month of the year, and I am confident that they undergo no seasonal changes of plumage. The young birds take nearly a year to acquire the adult plumage.

Horsfield's Waxbill is very abundant in Southern Pegu in the vast grassy plains which lie between the Pegu and the Sittang rivers. I have not noticed it north of the latitude of Shwaygheen. It becomes rare towards Rangoon, but Dr. Armstrong observed it as far south as Elephant Point. Capt. Wardlaw Ramsay procured it in Karennee.

This small bird has a very considerable range. The specimens procured by Dr. Anderson near Bhamo, some of which are now in the British Museum, are referable to this species. It occurs in Siam and Cochin China, and also in the islands of Java, Flores and Timor.

This Waxbill is found only in grass-land and paddy-fields. They associate in tolerably large flocks and feed on the ground on minute seeds. Their flight is very rapid, and is effected by constant beatings of the wing, so rapidly carried out that the wings cannot be clearly seen, and these tiny birds look when flying like so many huge bees.

The nesting-season commences about the middle of October and lasts till the beginning of December. The nest is a spherical mass of grass, lined with feathers and placed near the ground in a soft tuft of grass. The eggs are four to six in number and white in colour.

Family ALAUDIDÆ.

Genus ALAUDA, Linn.

348. ALAUDA GULGULA.

THE INDIAN SKY-LARK.

Alauda gulgula, Franklin, *P. Z. S.* 1831, p. 119; *Jerd. B. Ind.* ii. p. 434; Hume & Henders. *Lah. to Yark.* p. 269, pl. xxix.; Hume, *Nests and Eggs*, p. 486; *Bl. B. Burm.* p. 95; *Armstrong, S. F.* iv. p. 337; *Oates, S. F.* v. p. 163; *Anders. Yunnan Exped.* p. 605; *Hume & Dav. S. F.* vi. p. 409; *Legge, Birds Ceylon*, p. 630; *Hume, S. F.* viii. p. 109; *Scully, S. F.* viii. p. 338; *Hume, S. F.* ix. p. 355 (footnote); *Oates, S. F.* x. p. 234. *Alauda peguensis*, *Oates, S. F.* iii. p. 342. *Alauda arvensis* (L.), *David et Oust. Ois. Chine*, p. 312.

Description.—*Male and female.* Upper plumage and wing-coverts dark brown, each feather broadly edged with fulvous; a pale supercilium from the nostrils to the end of the ear-coverts; ear-coverts streaked brown and fulvous; lower plumage pale fulvous, the cheeks and throat slightly spotted with brown, the breast boldly streaked with dark brown, the sides of the body indistinctly striped with paler brown; wings brown, edged with fulvous and with a tinge of rufous near the base of some of the quills; tail brown edged with fulvous, the penultimate feathers almost entirely fulvous on the outer web, the external pair all fulvous except the base of the inner web, which is brown.

Mouth yellowish; upper mandible dark horn; lower mandible pinkish fleshy, dusky at the tip; iris brown; eyelids plumbeous; legs fleshy brown; claws pale horn-colour.

Length 6·5 inches, tail 2·3, wing 3·4, tarsus 1, bill from gape ·75. The female is of about the same size.

The Indian Sky-Lark differs from its European representative chiefly in being smaller. The Sky-Larks are subject to great variation in size, and have been much subdivided into species. Mr. Swinhoe gives five species from China:—*A. cantarella*, *A. cœlix*, *A. sala*, *A. wattersi*, and *A. arvensis*, which latter bird is *A. gulgula*. *A. dulcivox* from the Himalayas is another doubtfully distinct race; and there are others. Having only one Sky-Lark to deal with in this work, I think it well to retain for it the distinctive appellation of *A. gulgula*. Had I to deal with the birds of a larger tract of country, I should be inclined to unite all the above so-called species under one name.

The Indian Sky-Lark is said by Mr. Blyth to occur in Arrakan. I found

it very abundant in Southern Pegu between the Pegu and the Sittang rivers as far north as the latitude of Shwaygheen. Dr. Armstrong states that it is spread over the whole Irrawaddy delta, and Mr. Davison observed it in the plains between the Sittang and the Salween rivers and in the immediate neighbourhood of Moulmein. It is apparently absent in the Irrawaddy valley from the head of the Delta up to the frontier.

It occurs in Siam and Cochin China, and under various names is found throughout China and Eastern Siberia. It ranges through the Indo-Burmese countries and is diffused over the whole peninsula of India and Ceylon.

This Lark chiefly frequents cultivated lands, but is also found in those portions of the plains which are covered with wild paddy and short elephant-grass. It is, I believe, a constant resident. It soars very high, and sings quite as well as the English Sky-Lark. It is in song from October, or even earlier, up to March or April. It commences to breed very early, as I have found the nest with well-incubated eggs as early as the end of December. The nest is merely a small pad of grass placed in a hoof-mark or depression in the soil, frequently, but not always, under the shelter of a tuft of grass, and is semidomed. The eggs, three or four in number, are greyish white mottled with brown.

Genus ALAUDULA, *Blyth*.*

349. ALAUDULA RAYTAL.

THE INDIAN SAND-LARK.

Alauda raytal, *Bl. J. A. S. B.* xiii. p. 962. *Alaudula raytal*, *Jerd. B. Ind.* ii. p. 428; *Hume, Nests and Eggs*, p. 481; *Bl. B. Burm.* p. 95; *Hume, S. F.* iii. p. 159; *Anders. Yunnan Exped.* p. 606; *Cripps, S. F.* vii. p. 295; *Hume, S. F.* viii. p. 109; *Oates, S. F.* x. p. 234.

Description.—*Male and female.* Upper plumage greyish brown, with dark shaft-lines; lores, supercilium and feathers under the eye white; ear-coverts streaked with grey and brown; lower plumage white, with a few small brown streaks on the breast; wings brown, edged with the colour of the upper plumage; tail brown, edged with greyish white; the outermost feathers all white, except the edge of the inner webs; the penultimate white on the outer webs, brown on the inner.

Legs fleshy yellow; claws pale horn; bill horn-colour with a greenish

* Horsf. & Moore, *Cat. Birds Mus. E.I. Co.* ii. p. 471.

tinge, the tip dusky, the gape yellowish; iris brown; eyelids plumbeous; mouth flesh-colour.

Length 5·4 inches, tail 1·8, wing 3·1, tarsus ·75, bill from gape ·6.

The Indian Sand-Lark is confined in British Burmah to the sand-banks of the Irrawaddy river between Prome and the frontier.

It extends up the Irrawaddy valley, and occurs in Assam, Bengal and Northern India.

I observed this Lark in the Irrawaddy near Thayetmyo, where it was common. It runs along the edges of the sand-banks very swiftly, feeding on the minute insects which lie at the water's edge. Dr. Jerdon found them feeding on the roads at Thayetmyo when the river was at high flood. It probably breeds in April; but I have not been able to find the nest. In India it makes a slight saucer-like nest of grass in a hollow under shelter of a tuft of grass or small bush, and lays two or three eggs, which are grey marked with yellowish brown. This Lark does not soar in the air, and I do not remember to have ever heard it sing.

Genus MIRAFA, *Horsf.*

350. MIRAFA ASSAMICA.

THE BENGAL BUSH-LARK.

Mirafra assamica, *McClell.* P. Z. S. 1839, p. 162; *Jerd. B. Ind.* ii. p. 416; *Hume, Nests and Eggs*, p. 473; *Ball, S. F.* ii. p. 421; *Bl. B. Burm.* p. 95; *Anders. Yunnan Exped.* p. 606; *Cripps, S. F.* vii. p. 294; *Hume, S. F.* viii. p. 108.

Description.—*Male and female.* The whole upper plumage ashy brown, each feather with a large dark-brown streak in the centre; the streaks on the rump and upper tail-coverts smaller and less conspicuous; wing-coverts brown, edged with pale rufous-white; quills brown, the outer webs of the primaries chiefly deep ferruginous, those of the secondaries edged with paler rufous, and the tertiaries edged on both webs with rufous-white; the inner webs of all the quills ferruginous as seen from below; tail brown, edged with fulvous-brown; a pale fulvous supercilium; lores, ear-coverts and cheeks mingled brown and pale fulvous; chin and throat white; lower plumage fulvescent, with dark brown streaks on the breast.

Bill dusky above, fleshy whitish beneath; legs pale fleshy brown; irides hazel-brown. (*Jerdon.*)

Length about 5·5 inches, tail 2·1, wing 3·3, tarsus ·95, bill from gape ·75, hind claw ·5 to ·6. The female is of the same size.

The Bengal Bush-Lark is said by Mr. Blyth to have occurred in Arrakan. It has not yet been observed in any other part of Burmah.

It occurs in the Indo-Burmese countries, and is found throughout the greater portion of Northern India.

Dr. Jerdon says:—"It is a tolerably familiar bird, feeding in gardens and bushy places, squatting when watched and then taking a short flight; and it appears to have the propensity to hide itself more than any of the other Indian species. It frequently perches on bushes."

The nest and eggs appear to be very similar to those of the next species.

351. MIRAFA AFFINIS.

THE MADRAS BUSH-LARK.

Mirafra affinis, *Jerd. Madr. Journ.* xiii. pt. ii. p. 136; *Jerd. B. Ind.* ii. p. 417; *Hume, Nests and Eggs*, p. 474; *Ball, S. F.* ii. p. 422; *Bl. & Wald. B. Burm.* p. 95; *Hume, S. F.* viii. p. 108; *Legge, Birds Ceylon*, p. 634. **Mirafra microptera**, *Hume, S. F.* i. p. 483; *id. Nests and Eggs*, p. 475; *id. S. F.* iii. p. 159; *Oates, S. F.* v. p. 163; *Hume, S. F.* viii. p. 108.

Description.—*Male and female.* The whole upper plumage dark brown, each feather edged with reddish brown; upper wing-coverts brown, edged with rufous-white; quills brown, edged with bright rufous on the outer webs of the primaries and secondaries, with pale rufescent on both webs of the tertiaries; tail brown, edged with pale rufous-brown; sides of the head mixed rufous and brown; chin and throat white; a pale fulvous supercilium; lower plumage white, tinged with fulvous, especially on the breast, which is streaked with black; underside of wings ferruginous.

Iris hazel; lower mandible and margins of the upper very light pinkish flesh-colour; remainder of the upper mandible dark horn-colour; legs light flesh-colour; claws pinkish.

Length 5·5 inches, tail 2, wing 2·9, tarsus 1, bill from gape ·6, hind claw ·45. The female is of the same size.

This species may be distinguished from *M. assamica* by the rufous colour of the upper plumage. Mr. Hume has designated the Burmese bird *M. microptera*, on the grounds that it is smaller than the Indian one. He gives the wing of the Burmese bird as varying from 2·6 to 2·75 inches in length; but I find that the wings of Thayetmyo birds range up to 2·9 or rather more. On the other hand, the Indian bird has a wing which is usually 3·3 inches in length, but wings of 3·15 are by no means uncommon. Dimensions therefore cannot be altogether relied upon for the separation of the two supposed species. The Thayetmyo birds are also said to have a shorter bill, to have more rufous on the inner

webs of the quills, and to have no rufous on the outer webs of the primaries. I do not find these characters to hold good. On the whole, I am inclined to look upon this Burmese race as inseparable from the Indian *M. affinis*.

The Madras Bush-Lark is very abundant at Thayetmyo and in its immediate neighbourhood; but I have not observed it anywhere else.

It occurs in the southern half of the Indian peninsula and in Ceylon, and ranges up the eastern coast to Bengal. It probably occurs in the Indo-Burmese countries. Dr. Tiraud procured it in Cochin China.

This Lark is found in gardens and compounds, as well as on roadsides and patches of jungle. It takes short flights into the air, singing all the while, and generally alights on a bush previously to gaining the ground. When observed, it squats closely and after a short interval takes flight.

I found the nest at Boulay in July. It was made of grass, partially domed, and was placed in a hoof-mark under a tuft of grass and overhung by a small bush. It contained two eggs and a young bird; the former were white, thickly spotted with rusty brown.

Section *OSCINES CULTRIROSTRES*.

Family STURNIDÆ.

Genus GRACUPICA, *Less*.

352. GRACUPICA NIGRICOLLIS.

THE BLACK-NECKED MYNAH.

Gracula nigricollis, *Payk. Act. Holm.* xxviii. t. ix. (1766). *Sturnopastor nigricollis*, *Bl. B. Burm.* p. 90; *Anders. Yunnan Exped.* p. 595. *Gracupica nigricollis*, *David et Oust. Ois. Chine*, p. 364; *Hume, S. F.* ix. p. 288.

Description.—*Male and female.* The whole head above and below white, encircled by a black collar about an inch deep, but varying in extent in different individuals; below this collar there is a band, confined to the back, of black feathers broadly margined with white; back, scapulars, upper rump and the longer tail-coverts dark brown, each feather edged paler; lower rump and the shorter tail-coverts white; tail dark brown, very broadly tipped with white; lower plumage, with the exception of the collar, white; under wing-coverts black, tipped with white; primary-

coverts pure white; wings and coverts dark brown, each feather conspicuously tipped with white, except the primaries, the tippings to which are minute.

The *young* have the whole head, and the part occupied by the black collar in the adult, light brown.

Naked skin round the eye bright yellow. (*Tiraud*.)

Length 11 inches, tail 4, wing 6·3, tarsus 1·6, bill from forehead 1·4.

The Black-necked Mynah is said to have been observed on the Tenasserim river by some gentlemen who presented specimens collected in that locality to the late Mr. Mandelli. The birds in question have been identified by Mr. Hume, and I have therefore no hesitation in introducing this species among the birds of British Burmah.

This large Mynah occurs abundantly in Upper Burmah near Bhamo, where Dr. Anderson found it breeding in May in one of the few clumps of trees at Muangla. It is found throughout Southern China, Siam and Cochin China.

Dr. Tiraud, who states that it is extremely abundant in Cochin China, mentions that the natives are fond of caging it and that it is a most intelligent and amusing pet.

Genus STURNOPASTOR, *Hodgs*.

353. STURNOPASTOR SUPERCILIARIS.

THE BURMESE PIED MYNAH.

Sturnopastor superciliaris, *Bl. J. A. S. B.* xxxii. p. 77; *Hume, Nests and Eggs*, p. 427; *id. S. F.* iii. p. 149; *Armstrong, S. F.* iv. p. 331; *Hume & Dav. S. F.* vi. p. 387; *Hume, S. F.* viii. p. 106. **Sturnopastor contra** (*L.*), *Bl. B. Burm.* p. 90. **Sturnopastor contra** var. **superciliaris**, *Anders. Yunnan Exped.* p. 594.

Description.—*Male and female*. Forehead, lores, superciliary streak, cheeks and ear-coverts white; the white of the forehead produced in narrow streaks to the top of the head, which, with the nape, sides of neck, chin and throat and upper breast, are glossy black; the whole under plumage white; back, rump and upper tail-coverts dark brown, with a band of white across the lower rump; wings and tail dark brown, the tertiaries broadly margined with white; greater wing-coverts black; median coverts white; lesser coverts black, margined with white.

Gape and basal half of the bill orange; terminal half yellowish white; mouth black; eyelids orange-yellow; iris pale yellow; legs and claws brown.

Length 9 inches, tail 2·6, wing 4·5, tarsus 1·2, bill from gape 1·45. The female is of the same size.

S. contra of the Indian peninsula differs in wanting the white on the forehead and the streaks on the head; it has also less white round the eye and has a smaller bill. *S. jalla* from Java is very similar, but has no white on the head, the shafts of the feathers being merely paler than the other parts, and it has a large bare patch round the eye. *S. cineraceus*, from China and Upper Burmah, resembles *S. superciliaris* very closely, but has no patch on the wing and the tail is tipped with white.

The Burmese Pied Mynah is very abundant in all parts of British Burmah where there are villages and cultivated land, except in Tenasserim, where Mr. Davison did not observe it south of Mergui. At Thayetmyo it appears to be partially migratory, being absent from that locality more or less in October and November. In other parts of Burmah it is a constant resident.

It extends north into Native Burmah as far at least as Bhamo, where Dr. Anderson found it common, and Mr. Blyth states that it occurs in Siam.

This Mynah is usually found near houses and in the society of man, frequenting gardens and fields. It follows grazing cattle about in order to capture the grasshoppers and other insects which are disturbed by their feet. It does not enter the verandahs of houses as *A. tristis* does. It is usually seen in small flocks of five or six; and they are noisy birds, the note being remarkably joyous.

The breeding-season commences in April and lasts till June. The nest is an enormous mass of grass and straw placed on one of the lower boughs of a large tree or in a bamboo bush. This bird delights in making its nest conspicuous, and, both from its great size and from the noise the birds are continually making near it, it cannot be overlooked. The eggs, four or five in number, are blue.

Genus ACRIDOTHERES, Vieill.

354. ACRIDOTHERES TRISTIS.

THE HOUSE-MYNAH.

Paradisea tristis, Linn. *Syst. Nat.* i. p. 167. **Acridotheres tristis**, Jerd. *B. Ind.* ii. p. 325; Hume, *Nests and Eggs*, p. 428; Bl. B. *Burm.* p. 89; Oates, *S. F.* v. p. 160; Hume & Dav. *S. F.* vi. p. 388; Anders. *Yunnan Exped.* p. 593; Cripps, *S. F.* vii. p. 290; Hume, *S. F.* viii. p. 106; Scully, *S. F.* viii. p. 330.

Description.—*Male and female.* Whole head, neck and upper breast black; lower breast, flanks, sides of abdomen and thighs rich vinous

brown; upper plumage, with wing-coverts, secondaries and tertiaries, brown, tinged with vinous; primaries dark brown, with the bases white; tail blackish, all but the central pair of feathers broadly tipped with white.

Eyelids, the bill and skin about the eyes yellow; edges of the eyelids black; mouth bluish black; iris reddish brown, mottled with white; legs yellow; claws horn-colour.

Length 10 inches, tail 3·3, wing 5·2, tarsus 1·55, bill from gape 1·3. The female is very slightly smaller than the male.

The House-Mynah is abundant over the whole of British Burmah except in Tenasserim, where Mr. Davison did not meet with it south of Mergui.

It extends through the Indo-Burmese countries and is found over the whole peninsula of India, except in the extreme south and in Ceylon, where it is replaced by an allied species, *A. melanosternus*.

This Mynah is found in the immediate neighbourhood of villages and houses, even entering large towns. It is a familiar bird, entering the verandahs of houses in search of food, and frequently perching on a wall-plate to utter its loud and rather pleasing notes.

The breeding-season lasts from March to July or even later. The nest is made in roofs of buildings, holes of trees and walls and other similar situations; it consists merely of a bundle of grass and straw made to fit the cavity. The eggs, four or five in number, are blue.

355. ACRIDOTHERES FUSCUS.

THE JUNGLE-MYNAH.

Pastor fuscus (Temm.), *Wagler, Syst. Av., Pastor*, sp. 6. **Acridotheres fuscus**, *Jerd. B. Ind.* ii. p. 327; *Hume, Nests and Eggs*, p. 431; *Bl. B. Burm.* p. 90; *Armstrong, S. F.* iv. p. 332; *Oates, S. F.* v. p. 160; *Hume & Dav. S. F.* vi. p. 388; *Anders. Yunnan Exped.* p. 594; *Cripps, S. F.* vii. p. 291; *Hume, S. F.* viii. p. 106; *Scully, S. F.* viii. p. 330.

Description.—*Male and female.* Forehead, lores, nasal plumes, ear-coverts, top of the head and nape black; back, rump, upper tail-coverts and scapulars cinereous brown tinged with ruddy; winglet glossy black; primary-coverts white; primaries black tipped with bronze, each feather with a large white spot at the base; secondaries black, broadly edged with bronze on the outer webs; tertiaries and upper wing-coverts wholly bronze-colour; tail brownish black, the centre pair of feathers slightly, the others broadly tipped with white; chin, throat and breast dark ashy brown, becoming albescent on the centre of the abdomen; under tail-coverts fulvescent white; under wing-coverts black.

Iris bright yellow; basal half of bill bluish black, terminal half orange-yellow; mouth bluish; legs orange-yellow; claws greenish horn-colour.

Length 9·5 inches, tail 3, wing 4·7, tarsus 1·45, bill from gape 1·25. The female is very slightly smaller than the male.

The Jungle-Mynah is found abundantly in all parts of British Burmah as far south as Mergui. It will probably be found quite down to the extreme south of Tenasserim, for it inhabits the Malay peninsula.

It extends through the Indo-Burmese countries, and is found over a considerable portion of India. In the south of that peninsula it is replaced by a closely allied species, *A. mahrattensis*, in which the irides are pale blue instead of yellow. Mr. Blyth states that it occurs in the island of Hainan, but Mr. Swinhoe does not include it in his Catalogue of the Birds of China.

The Jungle-Mynah frequents the forests chiefly, and is less commonly met with in the neighbourhood of towns than the preceding species. It is nevertheless sufficiently abundant near villages, often feeding in the fields in company with cattle, and being met with also in compounds and on roads.

The nesting-season lasts from March to July. The nest is always placed in holes of trees in thick forests, at all heights from the ground, and is made of grass. The eggs are blue, and four or five in number.

356. ACRIDOTHERES SIAMENSIS.

THE SIAMESE MYNAH.

Acridotheres siamensis, Swinhoe, *P. Z. S.* 1863, p. 303; *Wald. in Bl. B. Burm.* p. 90; *id. Trans. Zool. Soc.* ix. p. 203; *Wardlaw Ramsay, Ibis*, 1877, p. 460; *Hume & Dav. S. F.* vi. p. 388; *Anders. Yunnan Exped.* p. 594; *Hume, S. F.* viii. p. 106, ix. p. 285.

Description.—*Male and female.* Upper plumage black; lower plumage blackish brown; under tail-coverts pure white, the bases blackish; tail black broadly tipped with white; wings black glossed with bronze; the primaries with a large patch of white near their bases. The feathers of the head are very narrow and pointed, and the frontal plumes are about three-quarters of an inch long.

Iris pale chocolate; bill orange-yellow; legs dusky yellow. (*Wardlaw Ramsay.*)

Length 10 inches, tail 3·5, wing 5·2, tarsus 1·5, bill from gape 1·3.

The Siamese Mynah was procured by Capt. Wardlaw Ramsay in Karennee at an elevation of 3000 feet, and Mr. Hume has examined a specimen

which was said to have been shot on the Tenasserim river. There is no other record of its occurrence in the Province.

It is found in Siam, and is very abundant, according to Dr. Tiraud, in Cochin China. Dr. Anderson met with it at Bhamo in Native Burmah and to the east towards the Chinese frontier.

I can find nothing noted about the habits of this bird.

A. cristatellus, from China, is a somewhat similar species; it differs in having the under tail-coverts black, merely tipped with white, and in having less white at the extremity of the tail. The character of the frontal plumes in the two species is also different. *A. albocinctus*, from Munipoor, is another Mynah of this genus, remarkable for its conspicuous white collar. *A. ginginianus* is said by Mr. Blyth to have occurred in Tenasserim; it is unlikely to occur in Burmah, and he must have been mistaken about it. In case, however, that it should be found in Burmah, I append Dr. Jerdon's description *.

Genus STURNIA, Less.

357. STURNIA PAGODARUM.

THE BLACK-HEADED MYNAH.

Turdus pagodarum, Gm. *Syst. Nat.* i. p. 816. *Temenuchus pagodarum*, Jerd. *B. Ind.* ii. p. 329; *Hume, Nests and Eggs*, p. 432; *Ball, S. F.* ii. p. 419. *Sturnia pagodarum*, Bl. *B. Burm.* p. 90; *Legge, Birds Ceylon*, p. 677; *Hume, S. F.* viii. p. 106.

Description.—*Male and female.* Head from forehead to nape with crest black; sides of the head, sides and back of the neck and the whole lower plumage as far as the vent rich buff, the feathers of the back of the neck, throat and breast much elongated and with the shafts pale; vent, thighs and under tail-coverts white; whole upper plumage (except the parts already described), the wing-coverts, tertiaries and secondaries grey, a few

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ACRIDOTHERES GINGINIANUS.

“Head with rather short occipital crest, lores, ear-coverts and nape glossy black; the rest of the plumage dull cinereous or inky black, paling beneath; wings black, with the wing-spot ferruginous; tail black, tipped dull ferruginous; middle of abdomen, of vent and the under tail-coverts pale ferruginous. The frontal feathers are slightly erectile, and those on the sides of the head are directed towards the median line.

“Bill red, yellow at the tip; nude eye-spot reddish; feet dull yellow. Length $8\frac{1}{2}$ inches, wing 5, tail $3\frac{1}{4}$, tarsus $1\frac{1}{4}$, bill at front nearly $\frac{7}{8}$.”

of the feathers of the back with buff shaft-streaks ; primaries and primary-coverts black, the former tipped with grey ; tail brown, broadly tipped with white ; the central pair of feathers wholly greyish brown with black shafts.

Bill blue at the base, then greenish, yellow at the tip ; irides greenish white ; legs bright yellow. (*Jerdon.*)

Length 8·5 inches, tail 3, wing 4·3, tarsus 1·15, bill from gape 1·05.

The Black-headed Mynah is said by Mr. Blyth to inhabit Arrakan. It does not appear to have been met with in any other part of the Province.

It has a considerable range, being found over the whole of the peninsula of India and Ceylon, and it most probably occurs in the Indo-Burmese countries.

This species feeds on the ground among cattle and also on trees, partaking of berries and flower-buds.

In India it breeds from May to August, constructing a nest of grass and feathers in the holes of trees, and laying four or five blue eggs.

358. STURNIA STURNINA.

THE DAURIAN MYNAH.

Gracula sturnina, *Pall. Reis. Russ. Reichs*, iii. p. 695 ; *Gm. Syst. Nat.* i. p. 399 ; *Wald. Trans. Zool. Soc.* ix. p. 204. **Sturnus dauuricus**, *Pall. Act. Holm.* 1778, p. 197, t. vii. ; *Gm. Syst. Nat.* i. p. 806 ; *Pall. Zoogr. Ross.-Asiat.* i. p. 422. **Pastor malayensis**, *Eyton, P. Z. S.* 1839, p. 103. **Temenuchus dauricus**, *Hume, S. F.* ii. p. 249 ; *David et Oust. Ois. Chine*, p. 362. **Sturnia daurica**, *Salvad. Ucc. Born.* p. 270. **Calornis daurica**, *Bl. & Wald. B. Burm.* p. 91. **Sturnia sturnina**, *Hume & Dav. S. F.* vi. p. 393 ; *Hume, S. F.* viii. p. 106 ; *Bingham, S. F.* ix. p. 193.

Description.—*Male and female.* The whole head, neck, under wing-coverts and axillaries and the whole lower plumage except the vent and under tail-coverts grey, paler beneath and darkest on the crown ; chin and throat tinged with fawn ; vent and under tail-coverts buff ; back, rump and lesser wing-coverts, with a large spot on the crown of the head, metallic purple ; a band of buff across the rump ; tail metallic green, the outer webs of the outer pair of feathers buff ; median wing-coverts black, broadly tipped with white tinged with buff ; greater coverts black, edged with metallic green and tipped with buffy white ; primary-coverts black edged with metallic green ; the scapulars with most of their outer webs buff, and the inner webs black at base and buffy brown at the ends ; primaries brown edged and tipped with metallic green, and the first few primaries further

edged mesially with buffish brown; secondaries brown, edged with metallic green; tertiaries almost wholly metallic green; the secondaries have a patch of buffish brown near the base of the outer webs.

In some birds the grey of the head and neck is produced on to the upper back and is streaked with brown. The number of primaries which have a brown edging varies from four to seven.

Young birds have those parts which are metallic in the adult plain brown, the patch on the crown being indicated at an early age. The marks on the wings and the buff band across the rump are always as in the adult. Birds of every intermediate form of colouring are to be found.

Legs and feet dull earthy green; the bill varies from black to brown, and is greenish blue or whitish at the base of the lower mandible. (*Davison*.) Irides dark brown, claws horn-colour. (*Bingham*.)

Length 7·5 inches, tail 2, wing 4, tarsus 1·1, bill from gape 1. The female is of the same size.

The Daurian Mynah is a winter visitor to the Province. Mr. Davison procured it in Tenasserim from Moulmein down to Mergui, and Capt. Bingham on the banks of the Hounghdraw river. Mr. Davison found it especially abundant near Tavoy in April. I have seen only one specimen from the Pegu Division; it was shot at Zeinganein, about ten miles north of Pegu.

In winter it is found in the Malay peninsula, Cochin China and in the island of Java, and probably in Sumatra and Borneo. Mr. Swinhoe states that it occurs in China at Tientsin and Peking, but he does not give the date of its occurrence at those places.

In summer, according to Père David, it is met with in Tartary and Mongolia, and he found it breeding at Ourato in the latter country.

Of this bird Mr. Davison says:—"It goes about in small flocks, and entirely resembles *S. nemoricola* in its voice and habits, but is much more shy."

359. STURNIA SINENSIS.

THE CHINESE MYNAH.

Oriolus sinensis, *Gm. Syst. Nat.* i. p. 394. *Pastor elegans*, *Less. Voy. Bélanger*, p. 266, pl. 6. *Sturnia sinensis*, *Bl. & Wald. B. Burm.* p. 91; *David et Oust. Ois. Chine*, p. 363; *Hume, S. F.* vii. p. 514, viii. p. 106, ix. p. 118; *Oates, S. F.* x. p. 229.

Description.--*Male and female.* The forehead, crown, lores, round the eye, the chin, rump and upper tail-coverts rosy ferruginous; the nape and the whole back deep grey; sides of neck, throat, breast and abdomen grey,

lighter than the back; flanks, under tail-coverts, axillaries and under wing-coverts rosy ferruginous; ear-coverts grey tinged with ferruginous; wings, primary-coverts and winglet black; the tertiaries suffused with metallic blue, the other feathers edged with the same; wing-coverts white, the greater series suffused with rosy ferruginous; tail black, the middle pair narrowly, the others broadly, tipped with ferruginous.

Some time after the moult, the beautiful rose-colour fades to white, or is present in only a very slight degree.

The *young* are uniform greyish brown with the wing-coverts pure white. There are traces of a metallic gloss on the wings from an early age.

Bill blue; the mouth darker blue; iris white; legs plumbeous; claws horn-colour.

Length 8 inches, tail 2·6, wing 4, tarsus 1·1, bill from gape 1·05.

The Chinese Mynah occurs in the winter season near Pegu, where I procured several specimens. It is, however, rare. It is not known to occur in any other part of Burmah; but Lesson asserts that he received it from some part of the Pegu Division.

Mr. Hume appears to have received specimens from Singapore; and Dr. Tiraud states that it is common in Cochin China near houses. This is probably in winter. In summer it retires to South China, where Père David says it breeds in holes of the roofs of houses.

The birds I met with near Pegu were feeding on the ground in small flocks, and on being fired at flew away to a distance.

360. STURNIA BURMANNICA.

JERDON'S MYNAH.

Sturnia burmannica, *Jerd. Ibis*, 1862, p. 21; *Bl. & Wald. B. Burm.* p. 90; *Hum S. F.* viii. p. 106; *Oates, S. F.* x. p. 230. *Temenuchus burmanicus*, *Hume, S. F.* iii. p. 149; *Armstrong, S. F.* iv. p. 332.

Description.—*Male and female.* The whole head and upper breast dull white; back and scapulars ashy brown; rump and upper tail-coverts paler; central pair of tail-feathers dark ashy brown, the others blackish, all broadly tipped with white; breast and abdomen vinous; vent and under tail-coverts fulvous white; under wing-coverts and axillaries white; primaries dark brown, tipped paler, and the bases of all pure white; primary-coverts white, with a little black near the bases of the outer feathers; secondaries, tertiaries and wing-coverts bronze, each feather very narrowly margined with black on the outer web.

Iris dark brown; eyelids and naked skin of the head slaty brown; the gape, the basal half of the lower mandible and the base of the upper mandible black; the remainder of the bill red; mouth dark blue; legs and claws dusky orange-yellow.

Length 9 inches, tail 3·1, wing 4·6, tarsus 1·3, bill from gape 1·2. The female is of about the same size.

Jerdon's Mynah is very abundant in Northern Pegu, especially round about Thayetmyo. To the south it becomes rare, and at Rangoon is seldom seen; but I have met with it on a few occasions on the road leading from Rangoon to Pegu in very small numbers. Capt. Wardlaw Ramsay procured it at Tonghoo and in Karennee. Mr. Davison did not, however, meet with it in any part of Tenasserim.

It is found in the Irrawaddy valley as far north as Mandelay, and it is not known to occur elsewhere outside the limits of British Burmah.

This Mynah is generally found in large flocks feeding on the ground in gardens and roadsides as well as in fields. When the cotton-trees are in flower they appear to feed a good deal on the saccharine matter contained in the blossoms, and I have seen these trees at such times covered with Mynahs. When at Thayetmyo I failed to look for the nests; but they will probably be found in holes of trees in April and May. This is a resident species.

361. STURNIA LEUCOCEPHALA.

HUME'S MYNAH.

Acridotheres leucocephalus, Gigl. & Salv. *Atti R. Acc. Sc. di Tor.* v. p. 273; *id. Ibis*, 1870, p. 185. *Sturnia incognita*, Hume, *S. F.* viii. p. 396, ix. p. 295.

Description.—Having never seen this species, I transcribe Mr. Hume's description:—"The lores dusky; the forehead, crown and occiput, including the filamentous crest and the sides of the occiput, a sort of dull earthy brown, in some specimens becoming dusky towards the occiput; chin, throat and sides of the head below the bare patch dirty white, and in specimens which are dusky on the crest with more or less of a blackish dusky patch at the base of the throat, extending in one specimen well on to the breast. I cannot be certain whether this is the natural colour of the feathers, or whether this black colour is due to some stain.

"A broad nuchal collar of a dirty pale pinkish buff or yellowish vinous; breast, upper abdomen, sides and flanks vinous, much the same colour as in *S. burmanica* but dingier; middle of lower abdomen, vent, tibial plumes, lower tail-coverts sullied white, with, in some specimens, a faint vinous or buffy tinge; axillaries, wing-lining and the extreme basal portions

of the primaries nearly pure white, as are the primary greater wing-coverts ; primaries black, brownish on their inner webs ; secondaries and their greater coverts bronzy brown ; interscapular region, scapulars, back and lesser wing-coverts black, with faint greenish reflections in some lights ; upper tail-coverts a pinky white or very pale vinous buff ; tail-feathers black, all but the central pair more and more broadly tipped with white as they approach the exterior ; the central tail-feathers narrowly tipped white, and with a faint metallic reflection.

“ The bill appears to have been orange, redder at the base, yellower at the tip, no black at base of lower mandible as in *S. burmanica* ; the legs and feet yellow, dusky on the feet ; the cheeks below the eye and a band extending for more than half an inch behind the eye bare, black in the dry skin, perhaps deep blue in the fresh bird *.

“ Length 9·0 to 10·0 inches, wing 4·75 to 5·1, tail from insertion 3·0 to 3·4, tarsus 1·28 to 1·4, bill from forehead 1·0 to 1·1.”

Although I have never seen the type of *A. leucocephalus* nor that of *S. incognita*, it is impossible to read the descriptions of the two birds without arriving at the conclusion that they belong to the same species. The head of the former is described as being white and that of the latter as earthy brown ; but no one who is familiar with this section of Mynahs will fail to reconcile these statements. Immediately after the moult the head of the allied *S. burmannica*, for instance, is nearly pure white ; but after a few weeks the colour changes to dull white, grey, and eventually to brown. The large bare patch behind the eye, the black back, and the whitish rump and upper tail-coverts all point to the identity of the two birds.

Hume's Mynah was originally obtained at Thu Duc, near Saigon, in Cochin China. Subsequently, according to Mr. Hume, a large number of specimens were procured inside our frontier on the hills that divide Tavoy from Siam. I can find no other notice of this species.

362. STURNIA MALABARICA.

THE GREY-HEADED MYNAH.

Turdus malabaricus, *Gm. Syst. Nat.* i. p. 816. **Temenuchus malabaricus**, *Jerd. B. Ind.* ii. p. 330 ; *Hume, Nests and Eggs*, p. 433 ; *Ball, S. F.* ii. p. 419 ; *Armstrong, S. F.* iv. p. 332 ; *Anders. Yunnan Exped.* p. 596. **Sturnia malabarica**, *Bl. & Wald. B. Burm.* p. 90 ; *Hume & Dav. S. F.* vi. p. 389 ; *Oates, S. F.* vii. p. 48 ; *Hume, S. F.* viii. p. 106.

Description.—*Male and female.* Forehead and the feathers over the eye whitish ; the whole upper plumage dark grey, tinged with ferruginous on

* In the description of *A. leucocephalus* the bill and legs are said to be yellow, the former reddish orange at the base ; iris brown.

the rump and upper tail-coverts; the shafts of the feathers of the head and neck whitish; *winglet, primary-coverts and all the primaries black*, the latter tipped with grey; remainder of the wing blackish, all the feathers tipped and edged on the outer web with grey, this edging becoming broader as the feathers approach the body; the central pair of tail-feathers grey, the others brown at the base and tipped with dark ferruginous, the tippings increasing in extent exteriorly; cheeks and ear-coverts pale rufous grey; chin, throat and upper breast rufous grey, the feathers with white shafts; remainder of the lower plumage deep ferruginous, darkest on the under tail-coverts.

The above description applies to the bird when in new plumage; after the moult the feathers get worn down and the colours fade, the grey of the upper parts becoming brownish and the deep rufous of the lower plumage fading to pale rufous.

Bill blue at base, green in the middle and yellow at the tip; legs brownish yellow, claws greenish; iris light blue.

Length 8 inches, tail 2·7, wing 4·1, tarsus ·9, bill from gape 1. The female is of the same size as the male.

The Grey-headed Mynah is spread over Arrakan, the southern portion of Pegu and in some parts of Tenasserim. It is very common all about Rangoon, and from that town all the way up the road to Kadote above Pegu. I also procured it at Shwaygheen. Mr. Davison met with it in Tenasserim only at Mergui; but he procured the next species in great numbers over the northern portion of the Division; and I am not sure that Mr. Hume may not have confounded specimens of the two species, for it was not till after the publication of his Tenasserim Catalogue that I pointed out the characters by which these two species might be recognized. My own men procured two specimens at Malewoon.

It extends through the Indo-Burmese countries, and is found over a great portion of India.

The Grey-headed Mynah is found in flocks of considerable size feeding both on the ground and on flowering-trees. It is of rather a shy disposition, and is not as a rule met with in the immediate vicinity of houses. It is a permanent resident. I got the nest in May, a small pad of grass placed in the hole of a tree at a great height from the ground; it contained three eggs, which were blue.

363. STURNIA NEMORICOLA.

THE WHITE-WINGED MYNAH.

Sturnia nemoricola, *Jerd. Ibis*, 1862, p. 22; *Bl. & Wald. B. Burm.* p. 91; *Hume & Dav. S. F.* vi. p. 390; *Oates, S. F.* vii. p. 48; *Hume, S. F.* viii. p. 106. *Temenuchus leucopterus*, *Hume, S. F.* ii. p. 48 (note). *Temenuchus nemoricolus*, *Hume, S. F.* iii. p. 151; *Armstrong & Hume, S. F.* iv. p. 333.

Description.—*Male and female.* Very similar to *S. malabarica* in general appearance. After the moult, when the plumage is fresh, the forehead and the crown as far back as the eyes, the chin, throat and breast are a clear pearly grey; the remainder of the lower plumage a beautiful rosy buff. In adults *the winglet, primary-coverts and the first or bastard primary are white.*

When the plumage gets worn, the feathers of the head and neck become reduced in many cases to mere shafts, and the beautiful rosy tinge of the lower parts gives place to a dull dirty buff. Notwithstanding the similarity which then exists between *S. nemoricola* and *S. malabarica*, the former may always be recognized by the presence of white on the wing.

Birds which are not adult fail to have the whole of the winglet and primary-coverts white; but, from the very first, one or more white feathers will be present on these parts, and this, coupled with the white bastard primary, suffices to indicate the species.

Occasionally a specimen of *S. malabarica* has a white bastard primary; but this is very rarely the case. In no instance, however, have I ever seen *S. malabarica* with a white first primary and also with a white feather on the winglet or coverts. There may be such instances known; but in these cases the birds can only be confounded with the young of *S. nemoricola*, never with the adults.

The dimensions and colours of the soft parts are the same as in *S. malabarica*.

The White-winged Mynah is abundant in Southern Pegu, extending sparingly to Thayetmyo in the Irrawaddy valley and to Tonghoo in the Sittang valley. Mr. Davison met with it in Tenasserim as far south as Amherst; and Capt. Bingham observed it in the Thoungyeen valley.

Dr. Tiraud states that this Mynah is very common in Cochin China; and he adds a remark about the plumage which clearly shows that he did not confound this bird with *S. malabarica*.

The habits of this species are precisely similar to those of the preceding. In fact they are frequently found together. I discovered the nests in May and June. They were placed in holes of trees; and the eggs were blue.

S. sericea from China has the wings black with beautiful metallic violet edges to the feathers, and the tail is not tipped with white; other-

wise it much resembles *S. burmannica*. *S. pyrrhogenys* from Japan has the head white and the back purple; the sides of the head and neck and a collar in front are maroon.

Genus CALORNIS, *G. R. Gray*.

364. CALORNIS CHALYBEA.

THE GLOSSY BLACK MYNAH.

Turdus chalybeus, *Horsf. Trans. Linn. Soc.* xiii. p. 148; *Wald. Trans. Zool. Soc.* viii. p. 79. **Turdus strigatus**, *Horsf. Trans. Linn. Soc.* xiii. p. 148. **Lanius insidiator**, *Raffles, Trans. Linn. Soc.* xiii. p. 307. **Calornis affinis**, *A. Hay, Bl. J. A. S. B.* xv. pp. 36, 369; *id. B. Burm.* p. 91; *Wald. Ibis*, 1875, p. 461. **Calornis irwini**, *Hume, S. F.* i. p. 481. **Calornis chalybæa**, *Salvad. Ucc. Born.* p. 271; *Bl. & Wald. B. Burm.* p. 91; *Tweedd. Ibis*, 1877, p. 318; *Hume & Dav. S. F.* vi. p. 394; *Hume, S. F.* viii. p. 106.

Description.—*Male and female.* The lores and feathers at the base of the upper mandible black without gloss: with this exception, the whole plumage black with a brilliant green gloss; wings and tail black with only a faint bluish gloss.

The *young* have the upper plumage brown overlaid with green; the wings brown, edged paler; the lower plumage buffy white, streaked with greenish brown.

In all adults the legs, feet, and bill are black, the irides crimson scarlet. In younger birds the legs and feet are brownish or bluish black, the irides yellowish white; at a later stage the irides are pale yellow with a reddish-brown tinge; then they become orange-vermilion, and finally scarlet-crimson. (*Davison*.)

Length 8·5 inches, tail 3·2, wing 4·1, tarsus ·9, bill from gape 1. The female is rather smaller.

The Glossy Mynahs from Burmah, the Malay peninsula, Sumatra, Java and Borneo are in my opinion identical. I have not been able to examine good specimens of *C. tytleri* from the Andaman Islands; but Mr. Hume asserts that birds from these islands differ in being larger and in having a duller metallic green gloss. If there are no better characters than these by which this supposed species may be recognized, I doubt whether it can be distinct.

The Glossy Black Mynah is stated by Mr. Blyth to occur in Arrakan. In Pegu I have failed to meet with it; but in the next Division, Tenasserim, it appears to be common from Yea down to Malewoon. From the latter place my men brought me such a vast number of skins of this Mynah that

it must be extremely abundant there. Capt. Bingham observed this bird on the Attaran river, thus increasing its range in Tenasserim to the north somewhat.

It has been met with in Chittagong, Tipperah, Cachar and Dacca. To the south it extends down the Malay peninsula to Sumatra, Java and Borneo.

I have not had the opportunity of observing the habits of this species; I therefore quote Mr. Davison's interesting account of this bird :—" About Malewoon and Bankasoon it is very abundant, keeping in flocks about the edges of the forest and in clearings where a good many trees are left standing. They are very noisy birds, and have a sharp metallic single note. At Malewoon several cocoa-nut palms growing on the banks of the creek in the heart of the town formed a nightly roosting-place for an immense number of these birds, and just about dusk flocks would keep arriving till many hundreds had assembled, and the chattering and screaming that went on till all were comfortably settled for the night was something awful. At Tavoy and Mergui the 'Htees,' or gilt ornaments on the top of the pagodas, were nightly resorted to by numbers, and in these 'Htees' the birds also breed."

Dr. Beccari remarks that in Borneo these birds build their nests in dovecots, and he found the eggs in January. The eggs, as described by Count Salvadori, are green or light blue with brown dots and marks, which are closest together at the thick end of the egg.

According to Messrs. Mottley and Dillwyn, these birds also breed in holes of the banks of rivers, as well as in cavities of large dry trees.

Genus GRACULA, *Linn.*

365. GRACULA INTERMEDIA.

THE BURMESE TALKING-MYNAH.

Gracula intermedia, *A. Hay, Madr. Journ.* xiii. pt. ii. p. 157. **Eulabes intermedia**, *Jerd. B. Ind.* ii. p. 339; *Ball, S. F.* i. p. 77; *Bl. & Wald. B. Burm.* p. 89; *Wardlaw Ramsay, Ibis*, 1877, p. 460; *Oates, S. F.* x. p. 230. **Eulabes andamanensis**, *Tytler; Beavan, Ibis*, 1867, p. 331; *Wald. Ibis*, 1871, p. 176. **Eulabes javanensis** (*Osborn*), *apud Hume, S. F.* ii. p. 254; *id. Nests and Eggs*, p. 436; *id. S. F.* iii. p. 153; *Armstrong, S. F.* iv. p. 335; *Bingham, S. F.* v. p. 86; *Hume & Dav. S. F.* vi. p. 396; *Hume, S. F.* viii. p. 106.

Description.—*Male and female.* The whole plumage black; all the feathers broadly edged with shining metallic lilac and green; the head, mantle and breast being lilac, the rump and upper tail-coverts green, and

the chin and throat green tinged with blue ; wings and tail blackish brown without gloss ; the first six primaries (not counting the minute bastard one) with a patch of white on the inner webs, and the second to the seventh also with a white patch on the outer webs.

Bill coral-red, yellow at the tip ; mouth flesh-colour ; iris brown ; wattles and naked skin of the head yellow, tinged with orange on the sides of the head ; the corner near the eye faintly tinged with blue ; legs yellow ; claws yellowish horn-colour.

Length 11·6 inches, tail 3·3, wing 6·4, tarsus 1·35, bill from gape 1·5. The female is rather smaller.

The Burmese Talking-Mynah appears to be found over the whole of British Burmah, alike in the hills and plains, in all well-wooded localities. Mr. Davison, however, states that it is not met with on the higher hills of Tenasserim ; and Capt. Wardlaw Ramsay does not notice it from Karennee.

This species occurs in the hill-tracts of Eastern Bengal, along the foot of the Himalayas as far as Kumaon, and in parts of the Central Provinces ; also in the Andaman Islands. It will probably be found in the Indo-Burmese countries.

To the south it ranges down the Malay peninsula for some distance ; but how far I am unable to say, as it has been confounded with the next species. Mr. Blyth states that it inhabits Siam ; and Dr. Tiraud, Cochin China ; but as the latter unites this species with *G. javanensis*, it is impossible to say which of the two it is that really inhabits Cochin China.

There are two species of *Gracula* given by Mr. Swinhoe from China, *G. hainana* and *G. sinensis* ; but I have not been able to examine specimens of them. Judging from the descriptions only, they do not appear to be more than local varieties of *G. intermedia*.

The Talking-Mynahs frequent tree-jungles, and they are generally found in small companies. They feed entirely on fruits, never descending to the ground. Their natural notes are varied ; some are pleasant, others very harsh ; and they are always very noisy. They are favourite cage-birds ; and few parrots even excel them in the facility for learning words and sentences. Their tameness, their glossy plumage, and the fondness they exhibit towards their owners endear them alike to Europeans and natives, and birds which have been well educated are almost priceless.

Capt. Bingham found the nest of this Mynah in Tenasserim in April. It consisted of a little grass and a few twigs, and was placed in the hollow of a stump of a broken branch. It contained three young birds and one egg, this latter being light blue spotted with purplish brown.

366. GRACULA JAVANENSIS.

THE MALAYAN TALKING-MYNAH.

Corvus javanensis, *Osbeck, Voyage to China*, i. p. 157. **Mainatus major**, *Briss. Orn.* ii. p. 308. **Eulabes javanus**, *Cuv. Règn. Anim.* 2nd edit. i. p. 377. **Mainatus sumatranus**, *Less. Traité*, p. 357. **Eulabes javanensis**, *Wald. Ibis*, 1871, p. 176. **Gracula javanensis**, *Salvad. Ucc. Born.* p. 274.

Description.—*Male and female.* Similar to *G. intermedia*, but larger, with very massive bill and legs; the feathered patch above the naked skin on the side of the head coalescing with the ear-coverts, or in some cases divided from them merely by a line not broader than a pin. In *G. intermedia* the patch is separated from the ear-coverts by a naked skin not less than .15 of an inch in breadth.

The soft parts, judging from skins only, are coloured as in *G. intermedia*.

Length about 12.5 inches, tail 3.5, wing 6.8, tarsus 1.5, bill from gape 1.6. The female is rather smaller.

Tenasserim specimens of this species agree well with specimens from the Malay peninsula, Sumatra and Java. The Javan bird is perhaps the most brilliant, and the Sumatran bird has the bill the most massive; but they all belong to the same species, and they cannot be confounded with *G. intermedia*.

The difference in the height and massiveness of the bills of this and the preceding species cannot be well exhibited by measurements. When the birds are placed side by side it is very striking.

The Malayan Talking-Mynah occurs in the extreme south of Tenasserim, where my men procured specimens from December to February. As Mr. Hume does not admit the specific distinctness of this and the preceding species, it is doubtful whether Mr. Davison met with it in Tenasserim or not.

It extends down the Malay peninsula, and is met with in Sumatra, Java, Bangka, Borneo and Palawan. As before remarked, it is doubtful whether this bird or *G. intermedia* occurs in Cochin China.

The habits of this species are not likely to differ in any particular from those of the preceding.

Genus SAROGLOSSA, *Hodgs.*

367. SAROGLOSSA SPILOPTERA.

THE CHESTNUT-THROATED MYNAH.

Lamprotornis spilopterus, *Vig. P. Z. S.* 1831, p. 35. *Saroglossa spiloptera*, *Jerd. B. Ind.* ii. p. 336; *Hume, Nests and Eggs*, p. 434; *Wald. in Bl. B. Burm.* p. 91; *Armstrong, S. F.* iv. p. 334; *Hume & Dav. S. F.* vi. p. 394; *Hume, S. F.* viii. p. 106.

Description.—*Male and female.* Upper plumage from the forehead to the upper back grey, each feather edged with black; back and scapulars grey, each feather edged with brown; rump plain brown; upper tail-coverts rufous-brown; tail brown tinged with rufous; lores, cheeks and ear-coverts black; chin and throat chestnut; centre of breast, centre of abdomen and the under tail-coverts white, tinged in places with rufous; flanks and remainder of lower plumage deep rufous; primaries, secondaries and primary-coverts black edged with metallic blue, and all the primaries with a white patch at their bases; wing-coverts dark brown edged with grey; tertiaries light brown; under wing-coverts and axillaries white.

Irides dull white; bill dusky black, reddish black at base of lower mandible; upper and lower mandibles margined with pale yellow; legs, feet and claws black. (*Armstrong.*)

Length 7·5 inches, tail 2·5, wing 4·2, tarsus ·85, bill from gape 1.

The Chestnut-throated Mynah has been observed in the Pegu Division; on the Karin hills, east of Tonghoo, by Capt. Wardlaw Ramsay, who states that it was tolerably abundant on the thickly-wooded slopes; and by Dr. Armstrong at Elephant Point, at the mouth of the Rangoon river.

According to Dr. Jerdon, this bird occurs in the Western and Central Himalayas and it inhabits the valleys about Simla and Mussoorie up to 6000 feet. It appears to be partially migratory; but hardly any thing appears to be known about its distribution and movements.

It seems to be a tree-Mynah, and not to descend to the ground. It breeds in the holes of trees, depositing a few leaves for its nest and laying three or four eggs, which are green spotted with red and purple.

Genus AMPELICEPS, *Bl.*

368. AMPELICEPS CORONATUS.

THE YELLOW-CROWNED MYNAH.

Ampeliceps coronatus, *Bl. J. A. S. B.* xi. p. 194, xv. p. 32; *Hume, Nests and Eggs*, p. 436; *Bl. B. Burm.* p. 89; *Armstrong, S. F.* iv. p. 335; *Hume & Dav. S. F.* vi. p. 398; *Hume, S. F.* viii. p. 106; *Inglis, S. F.* ix. p. 256; *Oates, S. F.* x. p. 231.

Description.—*Male and female.* Forehead, crown, chin and throat bright yellow; with this exception, the whole plumage is glossy black; the first six primaries with a patch of white on the inner webs, and the second to the seventh primaries with a yellow patch on the outer webs: in counting these, the first or bastard primary, which is very minute, is not taken into consideration.

The *young* appear to want the yellow on the head.

Bill pale orange, turning to blue at the gape; mouth livid; iris dark brown; ophthalmic skin yellow tinged with orange; legs dull orange; claws dark horn.

Length 8·5 inches, tail 2·4, wing 5, tarsus 1, bill from gape 1·1. The female is of nearly the same size.

The Yellow-crowned Mynah has been observed in many localities in British Burmah. I procured a few specimens at Kyeikpadein at different times of the year; Dr. Armstrong procured it near the China-Ba-Keer, a creek running into the Rangoon river between Rangoon and the sea; Colonel Lloyd got it at Tonghoo some years ago; and Mr. Davison states that it is found in Tenasserim from Moulmein down to Tavoy.

It has been recorded from Cachar by Mr. Inglis; and Mr. Blyth states that it occurs in Cochin China; but Dr. Tiraud did not meet with it in that country.

The few birds I met with were in tree-jungle in small flocks, and I had no opportunity of observing their habits. Mr. Davison found the nest near Tavoy in April. It consisted of dry grass and leaves, and was placed in the hole of a dead tree. The nest contained three young birds.

Family ARTAMIDÆ.

Genus ARTAMUS, Vieill.

369. ARTAMUS FUSCUS.

THE SWALLOW-SHRIKE.

Artamus fuscus, Vieill. *Nouv. Dict. d'Hist. Nat.* xvii. p. 297; Jerd. *B. Ind.* i. p. 441; Hume, *Nests and Eggs*, p. 194; Bl. *B. Burm.* p. 127; Hume, *S. F.* iii. p. 102; Armstrong, *S. F.* iv. p. 321; David et Oust. *Ois. Chine*, p. 101; Cripps, *S. F.* vii. p. 273; Sharpe, in Rowley's *Orn. Misc.* iii. p. 191; Legge, *Birds Ceylon*, p. 666; Hume, *S. F.* viii. p. 92; Oates, *S. F.* x. p. 203.

Description.—*Male and female.* Lores black; head and neck all round deep grey; back, scapulars, rump and the shorter upper tail-coverts brown with a vinaceous tinge; longer tail-coverts white; tail dark grey, tipped with whitish; wings and coverts deep grey, darker at the tips, and all the quills with excessively fine but distinct margins of white near the tips and on portions of the inner webs; lower plumage from the throat downwards pale purplish brown; lower tail-coverts whitish, finely barred with ashy.

The *young bird* is barred above, the white margins to the quills are broader, and the wing-coverts are tipped with rufous.

Bill clear pale blue, the tip and the anterior half of the margins brownish; iris dark brown; eyelids plumbeous; legs slate-colour; claws dark horn; mouth black in some, in others yellow, probably varying according to season.

Length 7·3 inches, tail 2·5, wing 5·2, tarsus ·65, bill from gape ·95. The female is of the same size.

The Swallow-Shrike, though somewhat capricious in its choice of localities, is very generally spread over the whole of Pegu. Mr. Blyth states that it is found in Arrakan; and it is probably common in that Division. In Tenasserim Dr. Armstrong met with this bird only at Amherst, and Mr. Davison did not observe it at all in that Division.

It extends through the Indo-Burmese countries, and inhabits the greater portion of the Indian peninsula and Ceylon. It is also found in South China, Siam and Cochin China. In the Andaman islands it is replaced by *A. leucorhynchus*, a species which has the rump and the whole lower surface white and the back and wings chocolate-brown.

The Swallow-Shrike is usually found in large flocks. They perch chiefly on dead trees, and launch themselves into the air to capture insects, returning to the same perch again; at times, however, the whole flock will sail about high in the air for long intervals, after the manner of the

Swallows but with a more direct flight. Their short, square tail and large expanse of wing render them easily recognizable when flying. They are very fond of palm-trees, and frequently select these trees for the purpose of breeding, the nest being placed at the junction of a leaf with the trunk. The nest is made of grass and twigs, and is of rather slight make. These birds also frequently build in holes of dead trees. The eggs, usually four in number, are whitish, marked at the larger end with yellowish brown and lilac. In Bengal the nesting-season appears to last from April to June; and it will probably be found to be the same in Burmah.

Family CORVIDÆ.

Genus CORVUS, *Linn.*

370. CORVUS MACRORHYNCHUS.

THE INDIAN JUNGLE-CROW.

Corvus macrorhynchus, *Wagler, Syst. Av., Corvus*, sp. 3; *Hume, S. F.* v. p. 461; *Legge, Birds Ceylon*, p. 346; *Hume, S. F.* viii. p. 105. **Corvus levaillantii**, *Less. Traité*, p. 328; *Hume, Nests and Eggs*, p. 411; *id. S. F.* ii. p. 243; *Anders. Yunnan Exped.* p. 589. **Corvus culminatus** (*Sykes*), *Jerd. B. Ind.* ii. p. 295. **Corvus vaillantii** (*Less.*), *Bl. B. Burm.* p. 86; *Oates, S. F.* v. p. 159. **Corone macrorhynchus**, *Sharpe, Cat. Birds B. Mus.* iii. p. 38. **Corone levaillantii**, *Sharpe, Cat. Birds B. Mus.* iii. p. 39.

Description.—*Male and female.* The whole of the plumage deep black glossed with purple, blue and green, varying in some measure according as the light is thrown on the bird.

Iris dark brown; legs, feet and bill black.

Length 19 inches, tail 7·6, wing 12·2, tarsus 2·3, bill from gape 2·3. The female is generally rather smaller.

Since Mr. Sharpe wrote about the Crows in the British-Museum collection, Mr. Hume has dealt exhaustively with the birds which inhabit India and Burmah, and has shown conclusively, I think, that the character depended on by Mr. Sharpe for differentiating *C. macrorhynchus* from *C. levaillantii*—viz. the colour of the bases of the feathers—is of no value. Under these circumstances it appears impossible to keep them separate.

The Indian Jungle-Crow occurs abundantly over the whole of British Burmah except in the south of Tenasserim, where, according to Mr. Davison, it is comparatively rare south of Mergui.

It is found over the whole continent of India as far as the Indus; in

Ceylon and the Andaman Islands; in the Indo-Burmese countries and China, extending to Eastern Siberia.

To the south its range extends down the Malayan peninsula to Sumatra, Java, Borneo, Flores, Timor and Bali; and it is probably spread over the whole of Siam and the adjacent countries, for Dr. Tiraud records it from Cochin China.

This Crow is found not only in the forests and the remoter parts of the jungle, but it also frequents towns and villages in considerable numbers. It associates with the ordinary House-Crow; and the two species have precisely the same habits.

The nesting-season commences in the middle of January, and lasts throughout February. The nest, a large structure made of twigs and lined with some soft material such as hair or grass, is placed near the summit of a tolerably large tree well away from human habitations. The eggs, four or five in number, are green, marked with various shades of brown.

371. CORVUS SPLENDENS.

THE INDIAN HOUSE-CROW.

Corvus splendens, Vieill. *Nouv. Dict. d'Hist. Nat.* viii. p. 441; Jerd. *B. Ind.* ii. p. 298; Bl. & Wald. *B. Burm.* p. 86; Hume, *S. F.* viii. p. 105; Scully, *S. F.* viii. p. 326; Legge, *Birds Ceylon*, p. 349. **Corvus impudicus** (Hodgs.), Hume, *S. F.* i. p. 206; *id.* *Nests and Eggs*, p. 413. **Corone splendens**, Sharpe, *Cat. Birds B. Mus.* iii. p. 33.

Description.—*Male and female.* Forehead, crown, lores, cheeks, chin and throat deep glossy black; nape, ear-coverts, the whole neck, upper back and breast light ashy brown; wings, tail and remainder of upper plumage glossy black; lower plumage from the breast dull brownish black. The feathers of the throat are lanceolate; and the whole of the black portions of the plumage are highly resplendent with purple-blue and greenish reflexions.

Iris dark brown; legs and bill black.

Length 17·5, tail 7, wing 11, tarsus 1·9, bill from gape 2. The female is usually rather smaller.

The Indian House-Crow is said by Mr. Blyth to be the Common Crow of Akyab, and to have occurred also in Kyoukphyoo. It is probably spread over the greater portion of Arrakan, not however crossing the mountains to the eastward.

Out of Burmah it is distributed over Chittagong and Assam and the whole continent of India and Ceylon; but its range to the east has yet to be determined. At Bhamo the next species occurs. Mr. Sharpe says he

has received a specimen from Malacca ; but I think the occurrence of this Crow in the Malay peninsula requires confirmation.

The habits and mode of nidification of this species are the same as those of the next.

372. CORVUS INSOLENS.

THE BURMESE HOUSE-CROW.

Corvus insolens, *Hume*, *S. F.* ii. p. 480, iii. p. 144 ; *Wald. in Bl. B. Burm.* p. 87 ; *Oates*, *S. F.* v. p. 159 ; *Wardlaw Ramsay*, *Ibis*, 1877, p. 459 ; *Anders. Yunnan Exped.* p. 589 ; *Hume & Dav. S. F.* vi. p. 380 ; *Hume*, *S. F.* viii. p. 105.
Corone insolens, *Sharpe*, *Cat. Birds B. Mus.* iii. p. 34.

Description.—*Male and female.* Forehead, crown, chin and throat glossy black ; back of the neck and its sides ashy brown ; ear-coverts and the whole lower plumage from the throat dull brownish black ; wings and tail and remainder of the plumage deep glossy black. The feathers of the throat are lanceolate ; and the whole of the black portions of the plumage are highly glossed with purple, blue, and green, varying according to the light thrown on them.

The dimensions are the same as those of *C. splendens*. The iris is dark brown ; the legs and bill black.

The Burmese House-Crow has been very properly separated from the Indian species by Mr. Hume. No one who is acquainted with both species will fail to recognize their specific distinctness. The Burmese bird has the back of the neck of such a dark shade of grey or ashy brown that the bird in life appears to be entirely black, whereas in the Indian bird the light grey of the same parts is most conspicuous.

This Crow is spread over the whole of Pegu. It extends through Arrakan up to the northern portion, where *C. splendens* appears to replace it. It probably occurs throughout Native Burmah, as Dr. Anderson procured it at Bhamo. Capt. Wardlaw Ramsay does not refer to it as occurring in Karennee ; but it is likely to be found there. In Tenasserim it is met with as far as Mergui, but does not appear to go south of this town. It has been sent from Siam, where it is probably abundant ; and Dr. Tiraud states that this species is the common House-Crow of Cochin China.

There is a specimen in the British Museum from Upper Assam ; but Colonel Godwin-Austen records *C. splendens*, and not this species, from the Daffa hills in that province.

The House-Crow of Burmah, like its congener in India, is extremely abundant in all towns and villages ; and even an isolated house in the

jungle will usually be found to attract some few of these birds. It is seldom seen at a distance from houses, its usual food consisting principally of the scraps left by man. Failing these it eats almost any thing—garbage, small mammals, frogs, and even insects; and when fruit is ripe it takes its share of it.

The breeding-season commences about the middle of March and lasts till the beginning of the rains. These birds almost always breed in societies, selecting a group of trees in a compound or near a monastery. The nest, made of twigs and lined with hair, grass or other soft substances, is placed high up in rather tall trees. The eggs, usually four in number, are greenish, marked with various shades of brown.

Genus UROCISSA, *Cabanis*.

373. UROCISSA OCCIPITALIS.

THE BLUE MAGPIE.

Psilorhinus occipitalis, *Bl. J. A. S. B.* xv. p. 26. **Psilorhinus magnirostris**, *Bl. J. A. S. B.* xv. p. 27. **Urocissa occipitalis**, *Jerd. B. Ind.* iii. p. 873; *Hume, Nests and Eggs*, p. 419; *Sharpe, Cat. Birds B. Mus.* iii. p. 70; *Hume, S. F.* viii. p. 105; *Scully, S. F.* viii. p. 327; *Bingham, S. F.* ix. p. 191. **Urocissa magnirostris**, *Bl. B. Burm.* p. 88; *Hume, S. F.* iii. p. 144; *Sharpe, Cat. Birds B. Mus.* iii. p. 71; *Wardlaw Ramsay, Ibis*, 1877, p. 460; *Hume & Dav. S. F.* vi. p. 385; *Anders. Yunnan Exped.* p. 592; *Hume, S. F.* viii. p. 105. **Urocissa sinensis** (*Lin.*), *Jerd. B. Ind.* ii. p. 309.

Description.—*Male and female.* Head, neck and breast black; a large patch on the nape, continued down the back of the neck, white; some of the feathers of the crown also tipped with white; lower plumage white tinged with purple; tail blue, broadly tipped with white, and all but the central pair of feathers with a band of black next the white tips; wings brown; the first two primaries edged with blue, the next five edged with blue above the margination and with bluish white below; the other primaries and secondaries almost entirely blue on the outer web; the tertiaries blue on both webs; the whole of the quills tipped with white, at first on the outer web only and gradually extending to both; back, scapulars and rump purplish blue; the wing-coverts brighter; upper tail-coverts blue tipped with black, and with a band of bluish white next the black tips.

Iris brown, probably turning to red in very old birds; bill and legs varying from red to crimson; eyelids greyish white; claws horn-colour; mouth flesh-colour.

Length as much as 28 inches, tail 17 to 19, wing 8, tarsus 1·9, bill from gape up to 1·7 or even more. The female is considerably smaller.

It seems to be now generally admitted that if the Burmese birds which Mr. Blyth named *U. magnirostris* differ from the Himalayan *U. occipitalis* it is merely in the colour of the iris and legs. But even this distinction appears to rest on doubtful ground. Dr. Jerdon, as far as I know, is the only naturalist who has stated that the iris of the Himalayan bird is red. Dr. Scully states that in three Nipalese birds the irides were brown, and Colonel Godwin-Austen remarks of a bird from the Naga hills that the iris also was dark brown. The balance of evidence is thus in favour of the iris of the Himalayan bird being brown like that of the Burmese bird. As for the legs, I find them described by Capt. Beavan as coral-red, by Dr. Jerdon as orange, and by Dr. Scully as orange-red or coral-red. With regard to the Burmese bird, I find that I described the legs as coral-red, and Capt. Feilden as scarlet. There is not much difference between these various terms; they all point to the same colour. I can moreover find no difference between the two supposed races in the matter of coloration or size of bill, and I consequently unite them under one name.

I found this beautiful Magpie common in the Thayetmyo district, in the dry forests, for some fifteen miles round the station of Thayetmyo. Capt. Wardlaw Ramsay found it at Tonghoo, and notes that it was very common in Karennee. Mr. Davison met with it about Pahpoo, on the Yonzaleen river, and noticed it at Wimpong, near Thatone; and Capt. Bingham states that it is common in the Thoungyeen valley. It has been found in Arrakan, but I do not know in what part of that Division.

Mr. Gould received this bird from Siam. Mr. Blanford mentions having seen it at Ava (Mandelay); Dr. Anderson procured it near Bhamo; and Colonel Godwin-Austen in the Naga hills. It is found in Sikhim, Nipal, Kumaon and along the Himalayas as far, at least, as the valley of the Sutlej, where Dr. Stoliczka met with it. It appears not to occur in Bhootan, where it is replaced by *U. flavirostris*, a yellow-billed species.

The Blue Magpie is found in small flocks of from three to six individuals, feeding chiefly on the ground, but also spending a good deal of its time in trees. It is a bird of the jungle, but is often seen in the immediate neighbourhood of villages and camping-grounds, looking out for food left by travellers. It is a favourite cage-bird and bears confinement well. Mr. W. Dunn has favoured me with an interesting account of some Magpies he kept in Burmah for several years, but I regret that it is too lengthy for this work.

Capt. Bingham found the nests of this species in March and April in Tenasserim, solid structures of twigs and branches, lined with finer twigs and placed invariably at the top of sapling trees about fifteen feet from the ground. The eggs, three or four in number, were white marked with claret-colour.

Genus DENDROCITTA, *Gould*.

374. DENDROCITTA RUFA.

THE INDIAN TREE-MAGPIE.

Lanius rufus, *Scop. Del. Faun. et Flor. Insub.* ii. p. 86. **Corvus rufus**, *Lath. Ind. Orn.* i. p. 161. **Coracias vagabunda**, *Lath. Ind. Orn.* i. p. 171. **Dendrocitta pallida**, *Bl. J. A. S. B.* xv. p. 30; *Jerd. B. Ind.* ii. p. 315. **Dendrocitta rufa**, *Jerd. B. Ind.* ii. p. 314; *Hume, Nests and Eggs*, p. 421; *Bl. B. Burm.* p. 88; *Sharpe, Cat. Birds B. Mus.* iii. p. 76; *Anders. Yunnan Exped.* p. 591; *Hume, S. F.* viii. p. 106.

Description.—*Male and female.* The whole head and neck with the breast sooty brown; remainder of the body-plumage bright fulvous, darker on the back and scapulars; wing-coverts greyish white; wings dark brown, the outer webs of the tertiaries and later secondaries grey; tail ashy grey, broadly tipped with black.

The *young* are duller in colour than the adults, the head is lighter brown, and the tail-feathers are tipped with light buff.

Iris reddish brown; bill slaty horn-colour, albescent at the base; mouth flesh-colour; eyelids plumbeous; legs dark brown; claws horn-colour.

Length 16·8 inches, tail 10, wing 6·1, tarsus 1·3, bill from gape 1·3. The female is smaller.

I have united *D. pallida* to *D. rufa* as it does not seem possible to maintain the former species. This Magpie varies much in intensity of colouring, and even in such a humid country as Burmah some specimens are very pale.

Specimens from the Himalayas and from Southern India have a sub-terminal pale band in front of the black tip of the central tail-feathers, and in many birds the other tail-feathers are tipped more or less with fulvous.

The Indian Tree-Magpie is found over every portion of British Burmah except in Southern Tenasserim, where it does not appear to occur south of Mergui. Capt. Wardlaw Ramsay does not record it from Karennee.

A single specimen was procured near Bhamo by Dr. Anderson, where it appears to be rare; for Mr. Swarries, the taxidermist of the Phayre Museum in Rangoon, who collected birds at Bhamo, did not bring it among his collections. Colonel Godwin-Austen procured it in the Khasia hills, and Dr. Jerdon says it occurs in Assam.

It is found over the whole continent of India as far as Cashmeer and Scinde on the north-west, and it ranges down the peninsula as far as the

Palani hills. In the Himalayas it is found up to an elevation of about 7000 feet.

This common Magpie is found alike in forests and in open country where there are a tolerable number of trees. It is quite a tree-Pie, never apparently descending to the ground. It goes about in small flocks, sometimes alone, and has a variety of notes.

I have not found the nest in Burmah. In India it appears to breed according to locality from April to July, constructing a nest, near the top of a large tree, of thorny twigs lined with grass. The eggs, usually five in number, vary much in colour, the markings being brown, reddish or purplish.

375. DENDROCITTA HIMALAYENSIS.

THE HIMALAYAN TREE-MAGPIE.

Dendrocitta himalayensis, *Bl. Ibis*, 1865, p. 45; *Hume, Nests and Eggs*, p. 423; *Bl. B. Burm.* p. 88; *Sharpe, Cat. Birds B. Mus.* iii. p. 79; *Wardlaw Ramsay, Ibis*, 1877, p. 459; *Hume & Dav. S. F.* vi. p. 386; *Hume, S. F.* viii. p. 106; *Scully, S. F.* viii. p. 329. **Dendrocitta sinensis** (*Lath.*), *Jerd. B. Ind.* ii. p. 316. **Dendrocitta assimilis**, *Hume, S. F.* v. p. 117; *Hume & Dav. S. F.* vi. p. 386; *Hume, S. F.* vii. p. 519, viii. p. 106.

Description.—*Male and female.* Forehead, lores and feathers above the eye black; sides of the head, chin and throat dark sooty brown, fading and overspreading the sides of the neck and the breast; crown of the head, nape and upper back ashy; back and scapulars clear brownish buff; rump and upper tail-coverts ashy; wings and their coverts black, all the primaries but the first two with a patch of white at their base, forming a conspicuous spot; central pair of tail-feathers ashy for two thirds of their length, then black; the others all black, except the extreme bases, which are ashy; abdomen and flanks cinereous; thighs brown; vent and under tail-coverts chestnut.

The *young* do not differ much from the adult; the colours are paler, the feathers of the upper plumage are tipped with buff, and the under tail-coverts and vent are reddish brown.

Bill black; irides reddish brown; feet brownish black, in young birds leaden black; claws dusky. (*Scully.*)

Length 16 inches, tail 9, wing 5·5, tarsus 1·1, bill from gape 1·3. The female is rather smaller.

Mr. Hume has separated under the name of *D. assimilis* a form of this species which occurs in Northern Tenasserim. It is described as being "very like *D. himalayensis*, but with a larger and more massive bill, much less compressed towards the tip; with cheeks, ear-coverts and throat brown

instead of blackish dusky; sides of neck and upper back tinged with the brown of the back (which is paler than in *D. himalayensis*) instead of being grey; black frontal band narrower, in many specimens conspicuously so." It is at best but a local race, and Mr. Hume himself remarks of it subsequently that it "scarcely perhaps deserves specific separation."

D. sinensis occurs throughout China, and may be recognized by its very much smaller size, by the tail-coverts being whiter and the central tail-feathers entirely black.

The Himalayan Tree-Magpie is stated by Mr. Blyth to occur in the mountains of Arrakan. Capt. Wardlaw Ramsay procured it on the Tonghoo hills and in Karennee, and Mr. Davison found it at Kollidoo and on Mooleyit mountain in Tenasserim. It has not yet been met with in any part of Pegu west of the Sittang river.

Out of Burmah it has been observed in Cachar and in the hills of Eastern Bengal. It occurs in Assam and along the whole Himalayan range as far at least as the Sutlej valley. In Sikhim Capt. Bulger remarks that they did not seem to range very high, and in Nipal Dr. Scully states that they do not ascend much higher than 6000 feet.

The habits of this species do not appear to differ from those of the preceding. Capt. Wardlaw Ramsay found the nest on the Karin hills at an elevation of 4200 feet on the 16th of April; it contained two eggs.

Genus CRYPSIRHINA, Vieill.

376. CRYPSIRHINA VARIANS.

THE BLACK RACKET-TAILED MAGPIE.

Corvus varians, *Lath. Ind. Orn. Suppl.* p. xxvi. **Phrenotrix temia**, *Hors. Trans. Linn. Soc.* xiii. p. 163; *id. Zool. Res. in Java*, pl. **Crypsirhina varians**, *Wald. P. Z. S.* 1866, p. 552; *Salvad. Ucc. Born.* p. 279; *Bl. B. Burm.* p. 88; *Hume, S. F.* iii. p. 146; *Sharpe, Cat. Birds B. Mus.* iii. p. 83; *Wardlaw Ramsay, Ibis*, 1877, p. 459; *Oates, S. F.* v. p. 159; *Hume & Dav. S. F.* vi. p. 386; *Hume, S. F.* viii. p. 106.

Description.—*Male and female.* The whole plumage metallic bronze green, tinged with bluish on the head; wings brown, the outer webs of the primaries greenish, the other quills more or less entirely suffused with green; tail black, more or less overspread with a metallic green lustre; forehead, round the eye and about the gape dull black, the feathers of a velvety texture.

Iris blue; mouth flesh-colour; bill, legs and claws black.

Length 13 inches, tail 8, wing 4·6, tarsus 1·1, bill from gape 1. The female is of about the same size.

The Black Racket-tailed Magpie has not yet been observed in any portion of Arrakan. In Pegu it is rare at Prome, and I have only once observed it in the Thayetmyo district, but from Prome southwards it becomes commoner till Thonsay is reached; from this point it is abundant over the whole of Lower Pegu, extending on the west to Bassein, where it was observed by Mr. Blanford, and on the south down to the sea. It extends all the way up the Sittang valley to Tonghoo. East of the Sittang, among the hills, it appears to be rare till Pahpoo is reached. From this place to Mergui it occurs, according to Mr. Davison, in greater or less abundance; but it has not been observed south of Mergui. It appears to be entirely absent from the Malay peninsula; but Count Salvadori records it with doubt from Malacca, and Lord Tweeddale from the northern portion of the Province Wellesley. Mr. Blyth states that it occurs in Lower Siam, and Dr. Tiraud notes that it is very common in Cochin China. It has been met with in South-east Sumatra, in the south of Borneo, and in Java.

This handsome little Magpie is found in all descriptions of jungle except in the larger forests. It is most abundant in gardens, secondary jungle and bamboo-brakes, going about singly or in pairs and feeding principally on large insects, for which it searches the foliage of trees, never descending to the ground.

The breeding-season lasts from May to July. The nest, which is cup-shaped, is constructed of small twigs and the tendrils of creepers, and is placed either on a branch of a bamboo or else in a thorny bush. The eggs are generally three in number, and are whitish, marked with ashy and yellowish brown.

377. *CRYPsirHINA CUCULLATA*.

THE HOODED RACKET-TAILED MAGPIE.

Crypsirhina cucullata, *Jerd. Ibis*, 1862, p. 20; *Hume, S. F.* iii. p. 147; *Bl. B. Burm.* p. 88; *Sharpe, Cat. Birds B. Mus.* iii. p. 84; *Wardlaw Ramsay, Ibis*, 1877, p. 459; *Hume, S. F.* viii. p. 106.

Description.—*Male and female.* The whole head, chin and throat black; round the neck, next to the black, a collar of ashy white; the whole upper plumage, wing-coverts and tertiaries vinaceous grey; lower plumage the same, but rather more rufous; central tail-feathers black, the others the same colour as the back; primaries and their coverts black; secondaries black, broadly edged with ashy white.

The *young* have the head brown; the central tail-feathers and wings are

blackish brown, and the general colour of the body-plumage is less ashy and more vinaceous.

The young have the bill orange at the gape and black on the remainder; the eyelids pale blue with the edges orange; the inside of the mouth orange.

The adult has the iris blue; eyelids plumbeous; bill black; legs and claws dark brown; inside of the mouth flesh-colour.

Length 12·5 inches, tail 7·8, wing 4·1, tarsus 1·05, bill from gape ·85. The female is of much the same size.

This Magpie has the central tail-feathers narrower than in *C. varians*, and more abruptly spatulate at their ends.

The Hooded Racket-tailed Magpie was discovered by Dr. Jerdon at Thayetmyo, and I found it very common in the neighbourhood of that station. It extends to the east about 20 miles to Tamagan, and on the south about 10 miles to Palow. It probably extends some way to the west of the Irrawaddy river, and to the north of Thayetmyo it ranges into Upper Burmah for some distance. Colonel Lloyd appears to have sent it from Tonghoo; but Capt. Wardlaw Ramsay expresses doubts as to its occurrence in that district, and I feel pretty sure it does not range so far to the east.

This species is very similar in habits to *C. varians*, but is found almost entirely in bamboo-jungle. I was not able to discover its nest.

Genus CISSA, *Boie*.

378. CISSA CHINENSIS.

THE GREEN JAY.

Coracias chinensis, *Bodd. Tabl. Pl. Enl.* p. 38. **Corvus speciosus**, *Shaw, Gen. Zool.* vii. p. 364. **Kitta venatoria**, *Gray, in Hardw. Ill. Ind. Zool.* i. pl. 2. **Cissa sinensis** (*Briss.*), *Jerd. B. Ind.* ii. p. 312; *Bl. B. Burm.* p. 89. **Cissa speciosa**, *Hume, Nests and Eggs*, p. 421; *Hume, S. F.* iii. p. 145, iv. p. 509; *Bingham, S. F.* v. p. 85. **Cissa chinensis**, *Sharpe, Cat. Birds B. Mus.* iii. p. 85; *Hume, S. F.* viii. p. 106.

Description.—*Male and female.* General body-plumage green; the lores and a band through the eyes meeting behind on the nape black; the cheeks, sides of neck and lower plumage paler green; tail green, the central feathers tipped with white, the others tipped with white and with a subterminal band of black; lesser wing-coverts green; the other coverts red; wings brown on the inner webs, red on the outer ones; the tertiaries and

some of the secondaries tipped with pale blue and with a band of black in front of the tips.

Bill red; eyelids yellowish brown, the edges red; legs coral-red; iris blood-red; claws dull red; inside of the mouth reddish flesh-colour.

Length 15 inches, tail 8, wing 5·9, tarsus 1·7, bill from gape 1·6. The female is of the same size.

The plumage of this bird changes after death, and also in captivity, from green to dull blue; and the red on the wings also undergoes a change under the same circumstances, becoming much duller. *C. minor*, a subspecies from Sumatra, is rather smaller.

The Green Jay is distributed over the whole of British Burmah from Arrakan down to Mergui in Tenasserim, being confined chiefly to the hill-forests. I found it abundant on the Pegu hills, but did not observe it in the plains. Mr. Davison procured it in Tenasserim as far south as Mee-tamyo, and Capt. Bingham observes that it is common in the Thoungyeen valley. Capt. Wardlaw Ramsay records it from the Karin hills east of Tonghoo, but he did not meet with it in Karennee.

It ranges through the Indo-Burmese countries to the hill-tracts of Eastern Bengal, and occurs in the Himalayas as far as the river Jumna.

This beautiful Jay frequents forests singly or in pairs, feeding principally on the ground on the larger insects and is very shy. I found the nest in April on the Pegu hills; it was a large cup-shaped structure made of leaves and coarse roots and lined inside with fibres and fine roots. It was placed in a small tree about twenty feet from the ground, and contained three eggs, which were greenish white marked with yellowish brown.

Genus GARRULUS, *Briss.*

379. GARRULUS LEUCOTIS.

THE BURMESE JAY.

Garrulus leucotis, *Hume, Proc. A. S. B.* 1874, p. 106; *id. S. F.* ii. p. 443; *Wald. in Bl. B. Burm.* p. 89; *Sharpe, Cat. Birds B. Mus.* iii. p. 99; *Wardlaw Ramsay, Ibis*, 1877, p. 460; *Hume & Dav. S. F.* vi. p. 384; *Hume, S. F.* viii. p. 105.

Description.—*Male and female.* Forehead and front of crown white, with brown shaft-streaks; lores, feathers under the eyes, the ear-coverts, chin, throat and front of neck white; a broad moustachial stripe black; back, rump, scapulars, lesser and median wing-coverts vinous brown, richer on the coverts and paler on the rump; breast the same as the back; abdomen and flanks paler vinous brown; upper and under tail-coverts and vent white; tail black, barred with blue towards the base; winglet, primary-

coverts and the outer greater wing-coverts barred with black and blue; inner greater wing-coverts black; primaries dark brown, the first few edged with ashy white on the outer webs and the later ones sparingly barred with blue on the outer webs; secondaries black, the basal two thirds of the outer webs boldly barred with blue; tertiaries black, the innermost one partly chestnut.

The *young* bird does not differ in any particular from the adult.

The legs and feet are whitish horny or flesh-colour; bill blackish horny or dull black, whitish at tip; irides lighter or darker wood-brown. (*Davison.*)

Length 12·8 inches, tail 5, wing 6·8, tarsus 1·7, bill from gape 1·5. The female is rather smaller.

This Jay is a very distinct species and cannot be confounded with any other. *Garrulus sinensis* occurs in South China, extending westwards to Setchuen; it has the crown of the head vinous, not black as in the present species.

The first specimen of this Jay that was probably ever procured by any naturalist was sent to me by Mr. Olive, Superintendent of Police, who shot it near Shwaygheen. Mr. Davison subsequently procured it at Kyouknyat, about 22 miles N.E. of Pahpoon, and at various points in Tenasserim ranging from Myawadee to the foot of Mooleyit mountain. Capt. Bingham got it between Kaukarit and Myawadee and on the Meplay Choung. Capt. Wardlaw Ramsay states that it is found close to Tonghoo and that it is generally distributed both in the hills and plains of the Tonghoo district. He also observed it in Karennee not far from the Salween river at 3500 feet elevation. My own men shot it close to Tonghoo. To the west of the Sittang river it occurs on the hills near Prome, where Mr. Olive assures me he has seen it.

Elsewhere it has only been observed in Cochin China by Dr. Tiraud.

I have had no opportunities of observing this Jay in a state of nature. Mr. Davison remarks :—" Usually I found it in small parties, occasionally in pairs or singly, going about the tops of the trees, one occasionally perching itself upon the very top of some tree in the self-sufficient way in which only a Jay can. The habits are quite those of other Jays, and they have the same harsh note. The stomachs of several that I opened contained only green grasshoppers. They, of course, like other Jays, frequently descend to the ground."

Genus PLATYSMURUS, *Reich.*

380. PLATYSMURUS LEUCOPTERUS.

THE WHITE-WINGED JAY.

Glaucopis leucopterus, *Temm. Pl. Col.* 265. **Temnurus leucopterus**, *Less. Traité*, p. 341; *Wald. in Bl. B. Burm.* p. 88. **Platysmurus leucopterus**, *Sharpe, Cat. Birds B. Mus.* iii. p. 90; *Tweedd. Ibis*, 1877, p. 318; *Hume & Dav. S. F.* vi. p. 387; *Hume, S. F.* viii. p. 106.

Description.—*Male and female.* The whole plumage black; the terminal halves of the larger upper wing-coverts and a large patch on the exterior webs of some of the secondaries white; the forehead crested and the feathers stiff.

In some specimens the smaller wing-coverts are narrowly margined with white, and this probably indicates immaturity.

Bill, legs, feet and claws black; irides lake-red to crimson. (*Davison.*)

Length 16 inches, tail 8, wing 7·5, tarsus 1·55, bill from gape 1·7. The female is of the same size.

The White-winged Jay was observed by Mr. Davison in Tenasserim from Meetamyo, a village about 20 miles N.E. of Tavoy, down to Malewoon at the extreme southern point of Tenasserim, and my own men procured a large number of birds at Malewoon and Bankasoon.

It occurs throughout the Malay peninsula and also in the south-east portion of Sumatra.

Mr. Davison says:—"This species keeps entirely to the forests, going about usually in parties of from four to six. They have a deep, rolling metallic note, which they continually utter as they move from tree to tree. I have never seen them on the ground; they probably get their food, which consists of insects, and occasionally, at any rate, of fruit, amongst the trees. They are excessively restless and always on the move, flying from tree to tree, generally at a considerable height, and continually uttering their harsh metallic call. They restrict themselves to the evergreen forests, never, that I am aware, coming into gardens or open ground."

Genus PLATYLOPHUS, *Swains.*

381. PLATYLOPHUS ARDESIACUS.

THE CRESTED JAY.

Lophocitta ardesiaca, *Cab. Mus. Hein.* i. p. 219; *Elliot, Ibis*, 1878, p. 54. *Platylophus ardesiacus*, *Sharpe, Cat. Birds B. Mus.* iii. p. 317; *Hume & Dav. S. F.* vi. p. 380; *Hume, S. F.* viii. p. 105.

Description.—*Male and female.* The whole head, crest, chin, throat and entire lower plumage blackish brown or nearly black; back, scapulars, wings and wing-coverts, rump and upper tail-coverts rich olive-brown; tail dark brown; a large patch of white on either side of the neck; two small distinct patches of white at the back of the eye near the corners of the eyelids.

The *young bird* has the head, crest and lower plumage blackish, but a good many of the feathers of the crown are chestnut and some of those on the abdomen white; the mantle and wing-coverts are rufous with chestnut tips; the tail and wings are much as in the adult. In another stage there is no chestnut on the crown and the chestnut tippings are confined to the wing-coverts; the lower plumage is dark brown, barred with white. Subsequently the chestnut tippings to the wing-coverts disappear, and the white bars on the lower plumage resolve themselves into spots or broken bars previously to vanishing altogether.

Legs, feet, claws and bill black; the eyelids dark brownish black; the irides are reddish brown, varying from a rhubarb-brown to a litharge-red. (*Davison.*)

Length 11 inches, tail 5, wing 5·5, tarsus 1·3, bill from gape 1·35. The female is slightly smaller.

From an examination of a series of these birds in the British Museum, and some specimens which my men shot in Tenasserim, I consider Mr. Sharpe correct in separating the Malayan bird from that of Java, and again from that found in Borneo and Sumatra. The Javan bird is black, and the Sumatran bird is reddish brown; and knowing as we do that in *P. ardesiacus* the sexes are alike, it is highly improbable, as has been suggested, that the above are merely different sexes of the same species.

The Crested Jay has been observed in the extreme south of Tenasserim by Mr. Davison, and my men procured several specimens at Malewoon.

It is confined to the Malay peninsula, being replaced in Sumatra and Borneo by *P. coronatus* and in Java by *P. galericulatus*.

Mr. Davison makes the following remarks regarding the habits of this bird:—"This species occurs only in the evergreen forests of the extreme south. It is a very restless bird, flying about from tree to tree and branch to branch incessantly, sometimes close to the ground, sometimes high up.

Even when seated it appears to be unable to keep the body quiet, but keeps bobbing and bowing. It always keeps its crest fully erected, and, as Dr. Stoliczka remarked, it looks like a gigantic *Lophophanes*. Its note is very peculiar, and once heard not easily forgotten; it is a sharp, clicking, metallic rattle. A small metal rattle made to revolve rapidly would produce a very similar sound.

“The food, I believe, consists entirely of insects, such as beetles &c. It is almost always seen in pairs, but on two occasions I think I saw three or four together.

Suborder TRACHEOPHONÆ.

Family PITTIDÆ.

Genus HYDRORNIS, *Hodgs.*

382. HYDRORNIS OATESI.

THE FULVOUS PITTA.

Hydrornis oatesi, *Hume*, *S. F.* i. p. 477; *Wald.* in *Bl. B. Burm.* p. 98; *Hume & Dav.* *S. F.* vi. p. 237; *Hume*, *S. F.* viii. p. 93.

Description.—*Male.* Upper part of the head, nape and mantle rich reddish brown; cheeks, ear-coverts and the whole lower plumage pale reddish brown, clearest on the throat; a black spot on either side the neck behind the ear-coverts not always visible; across the breast a band of feathers having their bases black and showing out more or less in different specimens; back, rump, upper tail-coverts and central tail-feathers dull green, tinged with blue on the rump and tail; lateral tail-feathers greenish brown; wings rusty, with a tinge of green on the secondaries and tertiaries; upper wing-coverts greenish rusty, some of the feathers tipped with fulvous.

The *female* is scarcely distinguishable from the male; the back is a trifle less green and the tinge of blue on the rump is wanting.

Upper mandible brown, the tip and edges salmon-colour; lower mandible brown; gape salmon-colour; inside of mouth flesh-colour; iris rich brown; eyelids plumbeous; legs and claws pinkish flesh-colour.

Length 10 inches, tail 2·6, wing 4·8, tarsus 2·1, bill from gape 1·4. The female is of much the same size.

I discovered this species on the Pegu hills, in the evergreen forests

which clothe the eastern slopes between Tonghoo and Thayetmyo. Mr. Davison met with it in the Tenasserim Division on Mooleyit mountain, and also at its base in the Hounghthraw Choung. Capt. Wardlaw Ramsay found it in Karennee at elevations of from 2500 to 4000 feet. It is likely to occur throughout Pegu and Tenasserim wherever there are damp evergreen forests, and it probably extends into Siam.

This species frequents the dark gloomy ravines of the evergreen forests, spots where the sun seldom penetrates except at midday, where the vegetation is very dense and the ground constantly damp. It feeds on worms and large insects, and seldom leaves the ground except to mount on a fallen trunk or a low branch. The note is a clear double whistle, and I heard it both during the day and the night.

383. HYDRORNIS NIPALENSIS.

THE BLUE-NAPED PITTA.

Paludicola nipalensis, *Hodgs. J. A. S. B.* vi. p. 103. **Brachyurus nipalensis**, *Elliot, Mon. Pitt.* pl. iii.; *id. Ibis*, 1870, p. 413. **Hydrornis nipalensis**, *Jerd. B. Ind.* i. p. 502; *Bl. B. Burm.* p. 97 *Oates S. F.* iii. p. 337 *Hume, S. F.* viii. p. 93.

Description.—*Male.* Differs from *H. oatesi* in having the hinder part of the head and the nape blue.

The *female* resembles the male, but has the blue on the head and nape replaced by bluish green.

Bill dusky, fleshy at the base; legs ruddy flesh-colour; claws whitish; iris lightish brown. (*Jerdon.*)

Length 9·3 inches, tail 2·1, wing 4·7, tarsus 2·1, bill from gape 1·25.

My men procured this Pitta on the Arrakan hills near Nyoungyo; and Sir Arthur Phayre sent it to Mr. Blyth from some portion of the Arrakan Division. There is no further record of its occurrence in British Burmah, and I do not think it will be found east of the Irrawaddy river. Mr. Blyth states that it is met with in Tenasserim; but he probably had *H. oatesi* sent to him, and did not think the latter species worthy of separation from *H. nipalensis*.

The Blue-naped Pitta occurs in Cachar and other parts of the hill-tracts of Eastern Bengal, and in the Himalayas from Assam up to Nipal.

The habits of this species are the same as those of *H. oatesi*. Mr. Hume found the nest in Sikhim in May, a mass of grass and leaves placed on the ground at the root of a bush. It contained three eggs, which were white spotted with purple.

Genus GIGANTIPITTA, *Bp.*

384. GIGANTIPITTA CÆRULEA.

THE GIANT PITTA.

Myiothera cærulea, *Raffl. Trans. Linn. Soc.* xiii. p. 301. **Brachyurus cærulea**, *Elliot, Mon. Pitt.* pls. i. & ii.; *id. Ibis*, 1870, p. 412. **Brachyurus davisoni**, *Hume, S. F.* iii. p. 321 (note). **Pitta cærulea**, *Hume & Dav. S. F.* vi. p. 238; *Hume, S. F.* viii. p. 94.

Description.—*Male.* Forehead, front and sides of head and the ear-coverts greyish brown, each feather narrowly margined with black; crown, nape and back of neck black; a broad supercilium produced back nearly to the end of the black on the neck, as also a broad patch below this line and separated from it by a broad black streak starting from the eye and passing over the ear-coverts, fulvescent; chin and upper throat plain fulvescent; lower throat and sides of the neck the same, but each feather slightly margined with blackish; the whole lower plumage fulvous with a tinge of green; the throat is separated from the breast by a broad collar of black formed by the bases of certain of the feathers; this collar is not, however, always present; wings chiefly black, all the exposed portions when shut being blue; back, upper wing-coverts, rump, tail-coverts and tail bright blue.

Female. The whole head and nape rufous-grey, closely barred with black; a broad streak from the eye over the ear-coverts and a broad collar round the back of the neck black; a supercilium reaching to the black collar, widening as it approaches it, and half surrounding the end of the black streak just referred to, plain fulvous; upper plumage chestnut; tail blue; wing-coverts and tertiaries chestnut; primaries and secondaries brown, more or less edged with ruddy; chin and throat pale grey; sides of the head and lower throat fulvous-grey, mottled with brownish; remainder of lower plumage fulvous, with a tinge of green; a black collar between the throat and breast, but not so conspicuous as in the male.

Legs and feet bluish fleshy or dark fleshy, tinged with pale plumbeous; bill black; inside of the mouth white; eyelids and gape very dark fleshy; irides hazel-grey. (*Davison.*)

Length 11·4 inches, tail 2·5, wing 6·2, tarsus 2·4, bill 1·75. The female is a little smaller.

The Giant Pitta was procured in Tenasserim by Mr. Davison at Banka-soon and at the foot of Nwalabo mountain.

It occurs in Borneo, Sumatra and at Malacca, and will probably be found to extend all the way up the Malay peninsula and also into Siam.

This species, like many others of this family, appears to be partially

migratory. Mr. Davison observed it in Tenasserim only from March to July. He says:—"They are extremely shy, and not at all like the other Pittas. Directly they catch sight of you they rise, flying low but rapidly, and not alighting under 200 or 300 yards, when, of course, in the dense forests where alone they occur, all trace of them is lost. They doubtless must call; but I have never heard their note to distinguish it. My specimens had fed entirely on large black ants."

Genus PITTA, Vieill.

385. PITTA CUCULLATA.

THE GREEN-BREASTED PITTA.

Pitta cucullata, *Hartl. Rev. Zool.* 1843, p. 65; *Jerd. B. Ind.* i. p. 504; *Davison, S. F.* v. p. 457; *Hume & Dav. S. F.* vi. p. 243; *Hume, S. F.* viii. p. 94. *Brachyurus cucullatus*, *Elliot, Mon. Pitt.* pl. xxviii.; *id. Ibis*, 1870, p. 420; *Hume, S. F.* iii. p. 109; *Bl. & Wald. B. Burm.* p. 98.

Description.—*Male and female.* The head from the nostrils to the nape rich rufous-brown; lores, cheeks, ear-coverts, chin, throat and a collar surrounding the head black; breast and sides of the body pale greenish blue; the abdomen black; lower abdomen, vent and under tail-coverts crimson; back, scapulars and rump dark glossy green; upper tail-coverts and all the smaller wing-coverts bright ultramarine-blue; primaries black, with a large white patch on each feather; secondaries black, with the terminal half of the outer webs edged broadly with greenish blue; tertiaries wholly dark green; the larger wing-coverts dull green; tail black, tipped with blue; under wing-coverts black.

Bill black; inside of mouth dusky fleshy; iris dark coffee-brown; eyelids plumbeous; legs and claws fleshy pink.

Length 7·5 inches, tail 1·6, wing 4·5, tarsus 1·7, bill from gape 1·05. The female is of the same size.

The Green-breasted Pitta appears to be generally distributed over British Burmah in suitable localities. I observed it to be plentiful on the Pegu hills between Thayetmyo and Tonghoo and in the jungle round Pegu and Kyeikpadein. In Tenasserim Mr. Davison procured it at Amherst, Bankasoon and Malewoon, and it will probably be found in every part of the Division. Mr. Blyth records it from Arrakan.

It is known to occur in the Malay peninsula as far at least as Malacca, and Dr. Tiraud states that it is found in Cochin China. It extends to the hill-tracts of Eastern Bengal, Assam, Sikhim and Nipal.

This species is probably migratory, for I have observed it only from April to July or August, and Mr. Davison procured it in Tenasserim from April to July. He found the nest at Amherst in the latter month; it contained four eggs. Both the nest and eggs, judging from Mr. Davison's description, resemble those of the next species, and the same is the case with the habits of the two birds.

386. PITTA MOLUCCENSIS.

THE LESSER BLUE-WINGED PITTA.

Pitta moluccensis, *P. L. S. Müll. Nat. Syst.* p. 144; *Oates, S. F.* v. p. 149; *Hume & Dav. S. F.* vi. p. 240; *Hume, S. F.* viii. p. 94. **Pitta cyanoptera**, *Temm. Pl. Col.* 218. **Brachyurus cyanopterus**, *Elliot, Mon. Pitt.* pl. iv. **Brachyurus moluccensis**, *Elliot, Ibis*, 1870, p. 413; *Hume, S. F.* iii. p. 106; *Bl. & Wald. B. Burm.* p. 98.

Description.—*Male and female.* Top of the head from the nostrils to the nape fulvous-brown; lores, cheeks, ear-coverts, a stripe over the eye and a broad band round the back of the head black; a dark-brown stripe over the head from the forehead to the nape; back, scapulars and tertials dull green; rump, upper tail-coverts and the smaller upper wing-coverts bright ultramarine-blue; chin immediately near the bill blackish, remainder of chin and throat white; breast, belly and flanks ruddy buff; a broad stripe down the abdomen; the vent and the under tail-coverts bright red; tail black, tipped with dull blue; primaries black, each feather with a large patch of white, mesial on the first, but approaching more and more the tip of the feather as the interior of the wing is reached; secondaries black edged with dull blue on the terminal half; tertiaries black, tipped and margined with bluish green; larger wing-coverts dull green, edged with bright blue; under wing-coverts black.

Young birds have the coronal streak broader and the feathers of the crown are narrowly margined with black; the wing-coverts are dull blue, and the colours of the other parts of the body less bright than in the adult.

Iris dark brown; eyelid and ocular region plumbeous; bill black; inside of mouth flesh-colour; legs fleshy pink; claws horn-colour.

Length 8 inches, tail 1·6, wing 4·9, tarsus 1·7, bill from gape 1·2. The female is of much the same size.

The Lesser Blue-winged Pitta has a wide distribution. It occurs in every part of Pegu; also in Arrakan, where my men got specimens; and Mr. Davison appears to have procured it in many places in Tenasserim.

It occurs in Siam and Cochin China, the Malay peninsula, Sumatra,

Borneo and the Philippine Islands, and Mr. Swinhoe observed it at Amoy in China. According to Messrs. David and Oustalet it ranges even up to the Corea.

It was recorded from Java by Temminck, but its occurrence in that island requires confirmation. The Leyden Museum possesses a specimen which is said to have come from the continent of India; the occurrence of this species in India, however, is very doubtful, as no one in more recent years has met with it there.

The Lesser Blue-winged Pitta is a summer visitor to Burmah, being found very abundantly distributed over the whole country from May to July. They make their appearance very suddenly, and all at once the jungle seems alive with these birds; and their loud melodious note, consisting of a double whistle, may be heard in every well-wooded locality. As a rule, these birds remain on the ground; but when calling (which they do chiefly in the morning and evening) they mount a tree, frequently perching near the summit. They are not gregarious, but numerous birds may generally be found together. They feed on worms, land-shells, ants and other insects.

Mr. Davison states that he has observed these Pittas in the extreme south of Tenasserim from January to July; it is therefore probable that this locality and the adjacent parts of the Malay peninsula may be a sort of neutral territory, where some of these birds are permanent residents.

Soon after their arrival the nesting-operations are taken in hand. The nest, a huge structure composed of sticks, leaves and roots, bound together with earth, is placed on the ground, either in an open place or against the root of a tree; but little or no attempt is made at concealment. It is globular in shape; sometimes longer than it is broad, at other times nearly spherical; and the entrance is at one side, close to the ground. The eggs vary in number from four to six, and are white, marked with spots and scrawls of purplish.

387. PITTA MEGARHYNCHÆ.

THE LARGER BLUE-WINGED PITTA.

Pitta megarhyncha, Schleg. *Vog. Ned. Ind.*, *Pitta*, p. 32, pl. 4. f. 2; *Elliot, Ibis*, 1870, pl. xii.; *Hume & Dav. S. F.* vi. p. 242; *Hume, S. F.* viii. p. 94. **Brachyurus megarhynchus**, Wald. in *Bl. B. Burm.* p. 98.

Description.—*Male and female.* Very similar to the preceding species, but differing slightly in coloration, in being larger, and in having a much longer bill. The coronal streak is obsolete or altogether absent, the brown of the head is darker, the breast is paler, and the black collar narrower.

Bill black ; iris deep brown ; legs and feet dark fleshy.

Length 9 inches, tail 1·7, wing 4·7, tarsus 1·6, bill from gape 1·6. The female is probably about the same size.

The Larger Blue-winged Pitta is no doubt distributed over the whole of Burmah, but it is a somewhat rare species as compared with the preceding. I procured two specimens in the Irrawaddy Delta near Pahpoo. Mr. Blyth mentions having received a large-billed variety of *P. moluccensis* from Arrakan, which was probably the present species ; and Mr. Davison met with it in Tenasserim at various places from Amherst southwards.

It is known to occur in the Malay peninsula and in the island of Bangka. Its distribution is probably the same as that of *P. moluccensis*, with which species it has long been confounded.

This Pitta is very likely a migratory bird in a great portion of Burmah ; but in the extreme south of Tenasserim it would appear to be, like *P. moluccensis*, a resident species, for my men shot a specimen at Malewoon on the 12th of January.

P. oreas, Swinhoe (*Ibis*, 1864, p. 428), from Formosa, which is identical with *P. bertæ*, Salvad. (*Atti Ac. Sc. Tor.* 1868, p. 527), from Borneo, is closely allied to *P. moluccensis* and the present species.

Genus EUCICHLA, Reich.

388. EUCICHLA COCCINEA.

THE MALAYAN SCARLET PITTA.

Pitta coccinea, Eytton, *P. Z. S.* 1839, p. 104 ; *Hume & Dav. S. F.* vi. p. 511 ; *Hume, S. F.* viii. p. 94. **Brachyurus granatinus**, Temm., *Elliot, Mon. Pitt.* pl. xv. ; *id. Ibis*, 1870, p. 417 (part.).

Description.—*Male and female.* The forehead, for about a quarter of an inch or to a point well in front of the eye, black ; the lores, a streak over the eye and the sides of the head black ; the top and back of the head deep crimson, bordered on either side of the nape by a streak of lavender-blue ; the whole upper plumage purplish blue, most brilliant on the back and dull on the other parts and tail ; wing-feathers black, the outer edges and tips more or less tinged with blue ; lesser wing-coverts plain black ; the greater coverts black, all broadly tipped with glistening blue ; chin and throat ochraceous, the feathers all tipped with dark brown ; the breast purple, each feather edged with crimson ; sides of the body, abdomen, vent and under tail-coverts crimson.

A young bird shot by Mr. Davison had the legs, feet and claws pale

lavender; the bill black; the gape and a spot at the base and tip of both mandibles orange-vermilion.

Length 7 inches, tail 1·6, wing 3·5, tarsus 1·5, bill from gape 1·05.

The Malayan Scarlet Pitta was obtained by Mr. Davison in Tenasserim at the foot of Nwalabo mountain.

It has been obtained in Province Wellesley, Malacca, Johore and Singapore, and it will probably be found throughout the whole Malay peninsula.

The true *E. granatina* is found in Borneo; it differs from the present species in having the black on the front of the head produced back to past the eyes. There is a very large series of these two Pittas in the British Museum, and this distinction between the two species is very constant. The heads of the two birds are figured in the 'Ibis' (*l. c.*); but it may be well to point out again in these pages that the names attached to the figures have been transposed, fig. 3 referring to *E. granatina* and fig. 4 to *E. coccinea*.

389. EUCICHLA GURNEYI.

GURNEY'S PITTA.

Pitta gurneyi, Hume, *S. F.* iii. p. 296, pl. iii.; Gould, *Birds Asia*, pt. xxix.; Hume & Dav. *S. F.* vi. p. 244; Hume, *S. F.* viii. p. 94. *Eucichla gurneyi*, Gould, *Mon. Pitt.* pl.

Description.—*Male.* Forehead, front of the head, lores, cheeks, ear-coverts, a stripe over the eye continued to the back of the head as a collar, breast, belly, vent and under tail-coverts deep black; top of the head and nape bright glistening blue, the feathers long and forming a crest; chin and throat white; sides of the neck and a broad collar on the upper breast bright yellow; sides of the body and of the breast yellow barred with black; under wing-coverts black, a few of the feathers in the middle being white; the upper plumage with the tertiaries and upper wing-coverts light chestnut-brown; primaries and their coverts black; secondaries black, the first two or three margined with whitish near the tip, the others margined more broadly with the same colour as the back; tail bright blue, the inner webs being nearly entirely black.

The *female* differs greatly from the male; the forehead pale, the crown and nape bright, ferruginous; cheeks, ear-coverts and a line along the neck black, a few of the feathers of the cheeks being pale orange-brown; chin and throat dirty white; remainder of the lower plumage yellow closely barred with black; the yellow is most bright on the breast, and the bars are almost absent on the abdomen; with the exception of the head, which

has been described, the whole upper plumage is like that of the male; lower tail-coverts black tipped with dull blue; primaries and secondaries dull brown; tail as in the male.

Bill black; iris dark brown; eyelids black; gape whitish; legs and claws fleshy white. (*Davison*.)

Length 8·5 inches, tail 2·2, wing 4·1, tarsus 1·6, bill from gape 1·1. The female is somewhat smaller.

This beautiful species was discovered by Mr. Davison in the most southerly part of Tenasserim. It inhabits the evergreen forests, and, like many other Pittas, appears to be to some extent migratory. Mr. Davison observed them from February to July; my own collectors procured a few specimens at Malewoon in the early part of the year.

It has been procured at Tonka, but is not yet known to occur in any other part of the Malay peninsula.

Pitta ellioti, Oustalet, from Cochin China, appears to belong to the genus *Eucichla*, but I have not been able to examine a specimen. It will probably be found to occur in Tenasserim. The crown of the head and crest are emerald-blue; the back and the tail ultramarine; the throat blue; the breast ashy green; a deep violet-blue band runs down the centre of the abdomen, and the sides of the body are yellow banded with black.

390. EUCICHLA CYANEA.

THE BLUE PITTA.

Pitta cyanea, *Bl. J. A. S. B.* xii. p. 1008; *Hume & Dav. S. F.* vi. p. 238; *Hume, S. F.* viii. p. 93; *Bingham, S. F.* ix. p. 473. **Brachyurus cyaneus**, *Elliot, Mon. Pitt.* pl. xiii.; *id. Ibis*, 1870, p. 413; *Hume, S. F.* iii. p. 104; *Bl. B. Burm.* p. 98.

Description.—*Male*. The lores and a broad streak from the eye over the ear-coverts to the nape black; the forehead and head greenish grey, changing to red on the crown, and giving place entirely to red on the nape, where the feathers are long and form a crest; a black streak from the bill, over the centre of the crown, to the nape; the whole upper plumage and tail blue; quills of the wing brown, with a white patch at their bases; cheeks and ear-coverts fulvous; below these a black moustachial stripe; chin and throat whitish mottled with black; remainder of lower plumage light blue barred with black, and the breast washed with yellow; the abdomen and lower tail-coverts paler blue and barely barred at all.

Female. Differs from the male in having the upper plumage brown

instead of blue, and in having the lower plumage yellowish brown barred with black.

Bill black; inside of mouth dusky fleshy; iris dark reddish brown; eyelids plumbeous; legs pinkish flesh-colour; claws whitish.

Length 9·1 inches, tail 2·3, wing 4·5, tarsus 1·8, bill from gape 1·2. The female is a trifle smaller.

Sir Arthur Phayre procured the Blue Pitta in Arrakan. I found it common on the Pegu hills in the evergreen forests on the eastern spurs between Thayetmyo and Tonghoo; Mr. deWet sent it to me from the neighbourhood of Tonghoo, and Capt. Wardlaw Ramsay got it in the Karin hills. Mr. Davison appears to have procured it in every portion of the Tenasserim Division he visited as far south as Tavoy. Capt. Bingham found it in the Thoungyeen valley; and in the British Museum are specimens from Siam.

This Pitta appears to be everywhere somewhat rare. It is of a shy disposition, however, and may perhaps elude observation. The birds I had the opportunity of observing were on the ground, and they are not, so far as I can judge, so addicted to thick luxuriant vegetation as the other Pittas.

Capt. Bingham found this bird breeding at Kaukarit in Tenasserim in May. The nest and eggs appear from his account to be very similar to those of *Pitta moluccensis*.

Genus ANTHOCINCLA, Bl.

391. ANTHOCINCLA PHAYRII.

PHAYRE'S PITTA.

Anthocincla phayrei, Bl. *J. A. S. B.* xxxi. p. 343; *Hume*, *S. F.* iii. p. 109, pl. ii.; *Bl. B. Burm.* p. 100; *Hume & Dav. S. F.* vi. p. 245; *Hume*, *S. F.* viii. p. 94; *Bingham*, *S. F.* ix. pp. 177, 474.

Description.—*Male.* A band from the forehead passing over the centre of the crown and expanding to cover the nape and whole hind neck black; the remainder of the crown and forehead rich fulvous, each feather narrowly edged with black; lores, cheeks and ear-coverts mixed rufous and black; a broad stripe from the eye over the ear-coverts, reaching well down the neck, white, each feather margined with black; some of the longer feathers, forming aigrettes, also barred with black; the whole upper plumage rufous-brown; the wing-coverts tipped broadly with fulvous and

with a subterminal black bar on both webs ; the tertiaries and tail rather duller than the back ; primaries brown, broadly tipped paler ; a large fulvous patch at the base of each feather ; secondaries brown, edged with the colour of the back ; chin and centre of the throat white ; sides of the throat fulvous, the feathers margined with black ; remainder of lower plumage fulvous ; the feathers of the breast very narrowly and indistinctly margined with black, and some of them with black spots ; the feathers of the sides of the body and flanks distinctly spotted near the tip of both webs ; under tail-coverts pink.

The *female* differs in wanting the black coronal streak and the black on the nape and hind neck, this colour being replaced by the colour of the back ; the feathers of the forehead and crown margined with black. She also differs from the male in having the breast more marked with black and the spots on the sides of the body larger.

Male : bill dark horny ; iris nut-brown ; legs and feet dirty flesh-colour blotched with brown. Female : bill horny ; iris dark brown ; legs, feet and claws fleshy white. (*Bingham, MS.*)

Male : length 8·7 inches, tail 2·3, wing 3·95, tarsus 1·25, bill from gape 1·5. Female : length 9·2, tail 2·3, wing 4, tarsus 1·2, bill from gape 1·48. (*Bingham, MS.*)

Phayre's Pitta was first obtained by Sir Arthur Phayre in the Tonghoo District, probably in the higher hills to the east of the Sittang river. Mr. Davison met with it in Tenasserim at Dargwin and Wimpong, in the Yonzaleen valley and in the Sinzaway forest reserve, and Capt. Bingham found it in the Thoungyeen valley. It appears to be an excessively rare bird.

Mr. Davison says :—" It has all the habits of a true Pitta, keeping and feeding, so far as I have observed, exclusively on the ground. It affects moderately thin tree-jungle. I observed it on one occasion close to Meetan. I have never, that I am aware, heard the note of this Thrush."

Capt. Bingham found the nest of this Pitta in the Thoungyeen valley. He says :—" A little search showed me a compact, little, oven-shaped nest, made on the ground at the foot of a tree, of leaves, roots and grass, and containing four eggs. The entrance to the nest was at the side looking down the steep slope on which it was built, and having a firm little platform of twigs leading up to it. The interior of the nest was lined with fine black roots. The eggs are glossy white, spotted chiefly at the larger end with purplish black."

Family EURYLÆMIDÆ.

Genus CALYPTOMENA, *Raffl.*

392. CALYPTOMENA VIRIDIS.

THE GREEN BROADBILL.

Calypptomena viridis, *Raffl. Trans. Linn. Soc.* xiii. p. 295; *Salvad. Ucc. Born.* p. 106; *Bl. B. Burm.* p. 124; *Hume & Dav. S. F.* vi. p. 86; *Hume, S. F.* viii. p. 86.

Description.—*Male.* The whole plumage glistening green, paling on the abdomen; a small spot just in front of the eye yellow; a broad line from this spot to the front of the head, but concealed in great measure by the overlapping green tips of the adjacent feathers, black; a spot behind the ear-coverts also black; wings dark brown or black; upper wing-coverts the same brilliant green as the body, with three broad black bands across them; under wing-coverts black.

Female. Green all over, but not brilliant as in the male, and paler on the lower plumage; the spot in front of the eye is yellowish green; and the black spots on the head and the bars on the wings are wanting.

The *young bird* is like the female, but of a duller colour.

The legs and feet vary, but are generally pale dirty or horny green, sometimes with a bluish tinge, sometimes a pinkish-grey tinge; the irides are very dark brown, appearing black at times; the gape is always more or less orange; the tip of the upper mandible and the lower mandible are light reddish horny or brownish orange or fleshy, shaded with orange towards the gape; the upper mandible, except the tip, varies from pale horny to brown, dark horny brown and black, or almost black. (*Davison.*)

Length 7·5 inches, tail 2·1, wing 4·2, tarsus ·8, bill from gape 1·1. The female is rather larger than the male.

The Green Broadbill occurs in Tenasserim from Amherst down to Malewoon.

It is found in the Malay peninsula, Sumatra and Borneo; and Dr. Tiraud states that he met with it in Cochin China.

Writing of this bird Mr. Davison says:—"This lovely bird occurs in Tenasserim from Amherst southwards. It keeps to the forest, preferring moderately thin tree-jungle and frequenting the tops of the trees singly or in pairs, or in small parties; feeding so far as I have observed, and I have dissected numbers, *entirely* on fruit.

"It is only in the morning or evening that they seem at all active. During the day they remain seated quietly about the tops of the trees, and are excessively difficult to detect. They are not at all shy, but at the same time not stupid, like the Broadbills, with which I may remark that they have nothing in common, neither habits, food nor note."

Genus PSARISOMUS, *Swains.*

393. PSARISOMUS DALHOUSIÆ.

THE LONG-TAILED BROADBILL.

Eurylaimus dalhousiæ, *Jameson, Edinb. New Phil. Journ.* xviii. p. 389. **Psarisomus dalhousiæ**, *Jerd. B. Ind.* i. p. 236; *Hume, S. F.* iii. p. 52; *Bl. & Wald. B. Burm.* p. 126; *Wald. Ibis*, 1875, p. 460; *Hume & Dav. S. F.* vi. p. 88; *Hume, S. F.* viii. p. 86; *Bingham, S. F.* viii. p. 193, ix. p. 156. **Psarisomus assimilis**, *Hume, S. F.* iii. p. 53.

Description.—*Male and female.* Forehead, top of head, nape and ear-coverts black; a large patch on the crown and a small one on the nape bright blue; a line over the bill, the lores, cheeks, chin, throat and a line on either side of the neck, running up to the blue spot on the nape, bright yellow; a spot over the ear-coverts yellow; whole upper plumage, the wing-coverts, tertiaries and the outer webs of the secondaries green; inner webs of the secondaries and primaries dark brown, the first eight primaries with a white spot; outer webs of the primaries blue in the middle and green elsewhere; lower plumage dull green, washed with blue in places; tail above blue, below black.

The *young bird* has the head green and wants the blue patches.

The general colour of the bill is green; the anterior half of the culmen bluish; the middle portion of the lower mandible dusky orange; and on the edge of the upper mandible there is a dusky patch; inside of mouth flesh-colour; iris brown; eyelids greenish; legs dull greenish; claws bluish horny.

Length 10·5 inches, tail 5, wing 4·1, tarsus 1·1, bill from gape 1·3. The female is of much the same size.

The Long-tailed Broadbill occurs in many parts of British Burmah. Mr. Blyth records it from Arrakan. I observed it in Pegu on the hills near the frontier between Thayetmyo and Tonghoo, and Capt. Wardlaw Ramsay procured it on the Karin hills east of Tonghoo at an elevation of 3000 feet. In Tenasserim Mr. Davison met with it on and round Mooleyit mountain only; but Capt. Bingham appears to have found it common in the Thoungyeen valley.

It is diffused through the hill-tracts of Eastern Bengal and the Himalayas from Assam to the Dhoon. *P. psittacinus*, from Sumatra, is probably identical with the present species.

This Broadbill inhabits the thickest forests and goes about singly or in pairs. It feeds entirely on insects and captures them either on the leaves of trees or by seizing them in the air. It is not a shy bird. Capt. Bingham found the nests of this species in Tenasserim in April; they were suspended from the branches of a very thorny tree and could not be reached.

Genus SERILOPHUS, *Swains.*

394. SERILOPHUS LUNATUS.

GOULD'S BROADBILL.

Eurylaimus lunatus, *Gould, Trans. Zool. Soc.* i. p. 176, t. 25. **Serilophus lunatus**, *Bl. & Wald. B. Burm.* p. 125; *Hume, S. F.* iii. p. 53; *Davison, S. F.* v. p. 455; *Hume & Dav. S. F.* vi. p. 89; *Hume, S. F.* viii. p. 86; *Oates, S. F.* viii. p. 164.

Description.—*Male.* Forehead, head and nape pale grey; lores and ear-coverts the same, but slightly rufous; a broad supercilium reaching to the nape black; the whole lower plumage greyish white; back and scapulars greyish brown; rump, tertiaries and upper tail-coverts chestnut; upper wing-coverts black; the lower ones the same; tail black, the three outer pairs of feathers broadly tipped with white; the next pair entirely black, but sometimes with a small white spot on the inner web near the tip; primaries and secondaries black; the third and fourth broadly tipped with white; the basal half of the outer webs of all blue; the inner webs of all with a large white spot; and, beginning at the sixth primary, the tips of the inner webs of all chestnut.

Female. Like the male, but with three or four narrow silvery white bands across the breast.

Bill light blue, paler on the culmen; gape, base of lower mandible and junction of the upper mandible with the forehead orange; mouth orange; eyelids greenish yellow; iris dark brown; legs greenish orange; claws light blue.

Length 7 inches, tail 2·8, wing 3·4, tarsus ·8, bill from gape ·92. The female is of the same size.

Gould's Broadbill has not yet been found outside the limits of British

Burmah. I met with it abundantly in the evergreen forests of the Pegu hills near the northern frontier of Pegu, and I also observed it in the immediate neighbourhood of the town of Pegu, where I found the nest. The late Colonel Lloyd sent it to the Marquis of Tweeddale from a locality thirty miles north of Tonghoo, and Capt. Wardlaw Ramsay found it in Karennee at an elevation of from 3000 to 4000 feet.

Mr. Davison observed it in Tenasserim quite down to Nwalabo mountain and the neighbourhood of Tavoy, and Capt. Bingham states that it is very common in the whole Thoungyeen valley.

This Broadbill occurs in small flocks, is strictly arboreal and is apparently restricted to dense forests or to very well-wooded localities. It is of a very stupid disposition, allowing an observer to approach quite close. I found the nest in May near Pegu town. It was a spherical structure suspended from the branch of a tree not far from the ground, and was composed of coarse grass, vegetable fibres and the outer membrane of the stalks of elephant-grass. The entrance, a small hole at the side, was protected by a rude porch, and the exterior of the nest was adorned with cocoons, excreta of caterpillars and pieces of bark. The eggs, four in number, were white, marked with purple and rusty brown. Mr. Davison found nests of this species in Tenasserim from April to July.

395. SERILOPHUS RUBROPYGIUS.

HODGSON'S BROADBILL.

Raya rubropygia, *Hodgs. J. A. S. B.* viii. p. 36. **Serilophus rubropygia**, *Jerd. B. Ind.* i. p. 238. **Serilophus rubropygius**, *Bl. B. Burm.* p. 125; *Hume, S. F.* iii. p. 53, viii. p. 86.

Description.—*Male*. Like *S. lunatus*, but differing in the following particulars :—The forehead, head and nape are dark iron-grey ; the superciliary streaks are narrow and inconspicuous ; the amount of white on the tail-feathers is much less ; the blue on the outer webs of the primaries is present only on the second to the fifth ; the white tips to the third and fourth primaries are obsolete ; only the primaries, beginning as in *S. lunatus* at the sixth, are tipped with chestnut on the inner webs, none of the secondaries having this tip ; most of the quills, except the first five primaries, have a white spot near the tip of the outer web.

Female. Differs from the male in having a white collar, as in the female of *S. lunatus*.

Bill soft blue ; orbital skin yellow ; irides brown ; legs yellowish green ; nails bluish. (*Jerdon*.)

Length 7·25 inches, tail 3, wing 3·5, bill at front ·55, tarsus ·9. (*Jerdon.*)

Hodgson's Broadbill is stated by Mr. Blyth to have occurred in Arrakan.

It extends through the hill-tracts of Eastern Bengal to the eastern portion of the Himalayas and is found as far as Nipal.

Genus EURYLÆMUS, *Horsf.*

396. EURYLÆMUS OCHROMELAS.

THE BLACK-AND-YELLOW BROADBILL.

Eurylaimus ochromalus, *Raffl. Trans. Linn. Soc.* xiii. p. 297. *Eurylæmus ochromelas*, *Salvad. Ucc. Born.* p. 108; *Bl. B. Burm.* p. 125; *Hume & Dav. S. F.* vi. p. 91; *Hume, S. F.* viii. p. 86.

Description.—*Male.* The whole head, neck, upper back and a pectoral band black; space between this pectoral band and the throat white, continued as a collar round the neck; breast and abdomen pale claret-colour; vent, sides of the body and under tail-coverts bright yellow; back yellow, each feather margined with black; a mesial band down the back, rump and upper tail-coverts bright yellow, the sides of these parts black; tail black, each feather having a subterminal yellowish-white spot; primaries black, with a small portion of the outer webs near the base yellowish white; secondaries and tertiaries black, with a bright yellow streak on the outer web of each; lesser wing-coverts mixed yellow and black; greater coverts black.

The *female* differs in having the black pectoral band interrupted in the centre.

The *young* have the forehead and a supercilium yellow and the chin and throat whitish.

Legs and feet dark but fleshy pink; claws brown; irides bright yellow; lower mandible, and upper mandible to 0·25 beyond nostril, bright smalt-blue; rest of upper mandible bright green; edge of both mandibles along the commissure black. (*Davison.*)

Length 6·5 inches, tail 2·3, wing 3·2, tarsus ·8, bill from gape 1·1. The female is of much the same size.

The Black-and-yellow Broadbill, which is found all through the Malay peninsula, extending into Sumatra and Borneo, is stated by Mr. Davison to occur in Tenasserim from the south up to Yea, but to be uncommon. It is probably a constant resident. He says:—"In habits it resembles

the other Broadbills, and, like the rest, is chiefly insectivorous. I have often shot these birds while catching insects on the wing, exactly after the manner of a Drongo or Flycatcher."

397. EURYLÆMUS JAVANICUS.

HORSFIELD'S BROADBILL.

Eurylaimus javanicus, *Horsf. Trans. Linn. Soc.* xiii. p. 170. **Eurylæmus javanicus**, *Salvad. Ucc. Born.* p. 107; *Bl. B. Burm.* p. 125; *Davison, S. F.* v. p. 456; *Hume & Dav. S. F.* vi. p. 89; *Hume, S. F.* viii. p. 86; *Bingham, S. F.* ix. p. 157.

Description.—*Male.* The whole head, neck and lower plumage vinous purple, darker and blackish on the forehead, crown, chin and throat, lighter and purer on the lower parts; the feathers of the flanks and under tail-coverts tipped with yellowish; a very narrow white streak under the eye; a narrow black collar across the breast, immediately below which the feathers are greenish brown; edge of the wing and under coverts bright yellow; upper wing-coverts black; back, rump, scapulars and upper tail-coverts mixed black and bright yellow; primaries black, with a yellowish spot at their bases; secondaries and tertiaries black, each feather having a long yellow spot on the outer web; tail black, each feather with a sub-terminal fulvous-white spot.

Female. Like the male, except that the narrow black pectoral band is absent.

Young birds have the wing-coverts tipped with yellow, and the lower plumage is dashed with yellow and orange.

Upper mandible bright blue to within one third of tip; rest of upper mandible pale sea-green; lower mandible pale greenish blue; both mandibles edged and tipped with brownish red; irides bright blue; legs and feet fleshy; claws brown. (*Davison.*)

Length 9 inches, tail 2·9, wing 4·3, tarsus 1·1, bill from gape 1·6. The female is smaller.

Horsfield's Broadbill inhabits Java and Borneo and is found all the way up the Malay peninsula. According to Mr. Davison it occurs in Tenasserim throughout its southern half, up to Amherst and Meetan. Capt. Bingham states that he observed it along the whole of the east face of the Dawna range nearly up to the mouth of the Thoungyeen river; and the late Colonel Lloyd is said to have sent it to Lord Tweeddale from the Tonghoo hills. Mr. Davison says:—"It feeds on insects and small reptiles. One that I shot had swallowed, head foremost, a small green

lizard over four inches in length. . . . This species, *E. ochromelas*, and *C. macrorhynchus* have a very peculiar note, not easy to express in words, but once heard not soon forgotten. It consists of a few single notes uttered at short intervals, and ending in a sort of rolling metallic-sounding *chir-r-r-r*. Though the note of all three species is of precisely the same type, yet they are notably distinct."

A nest found by this observer at Bankasoon in March was a massive structure composed of moss, leaves and twigs, and suspended from the tip of a tall bamboo overhanging a stream. It contained two eggs, which were white, speckled with rusty brown.

Genus CYMBORHYNCHUS, Vig.

398. CYMBORHYNCHUS MACRORHYNCHUS.

THE BLACK-AND-RED BROADBILL.

Todus macrorhynchus, *Gm. Syst. Nat.* i. p. 446. **Cymbirhynchus malaccensis**, *Salvad. Atti R. Ac. Sc. Tor.* ix. p. 425; *Oates, S. F.* iii. p. 336. **Cymborhynchus macrorhynchus**, *Salvad. Ucc. Born.* p. 109; *Bl. & Wald. B. Burm.* p. 126; *Davison, S. F.* v. p. 457; *Hume & Dav. S. F.* vi. p. 92; *Hume, S. F.* viii. p. 86.

Description.—*Male and female.* Chin and upper throat, a broad pectoral band, lores, cheeks, head, neck, back and wing-coverts black; rump and upper tail-coverts, the ear-coverts and space between the throat and the pectoral band, and the whole under plumage rich crimson, dashed on the belly with rich golden yellow; wings black, the basal portions of the inner webs of the feathers white; scapulars with the inner webs black and the outer white; tail black, with a white spot on the inner web of all but the central pair of feathers, the amount of white spotting varying much and being obsolete in some specimens; under wing-coverts blackish; axillaries yellowish white; edge of wing bright golden yellow.

The *young* bird has the red of the rump mottled with brown; the wing-coverts are tipped with whitish, and the chin and throat are greyish.

Upper mandible and a bordering along the edge of the lower mandible brilliant blue; remainder of the latter yellowish; edges of both transparent white; irides emerald-green, shot with gold; legs and feet ultramarine-blue; claws horny. (*Bingham.*)

Length 11 inches, tail 4·2, wing 5·4, tarsus 1·1, bill from gape 1·6.

The majority of specimens of this species from Borneo are characterized by an absence of white on the tail-feathers; Count Salvadori restricts the name of *C. macrorhynchus* to this race, and has named the birds from

the Malay peninsula, which are characterized by having white spots on the tail, *C. malaccensis*. On examining a very large series of these birds, I find that the two races are connected together by intermediate forms; and I therefore consider that they cannot be maintained as distinct.

This Broadbill was found by Mr. Davison over a large tract of country in Tenasserim, from the extreme south up to Lemyne, about seventy miles south of Moulmein; and Capt. Bingham met with it at the pass over the Dawna from Meeawuddy to Kaukarit. Out of Burmah it is found in Siam and all the way down the Malay peninsula. It occurs also in Sumatra, Borneo and the Sunda Islands.

This species, according to Mr. Davison, to whom we are indebted for so many interesting field-notes, is found in gardens and near villages. He writes:—"This, too, to the best of my belief, never touches fruit; insects are their food, and often great big ones too. I have seen one devouring a huge locust." He found the nests of this species in Tenasserim from April to June, each with three young birds. The nest resembles that of *E. javanicus* and, like it, is attached to the extreme end of a branch or bamboo overhanging water.

399. CYMBORHYNCHUS AFFINIS.

THE ALLIED BROADBILL.

Cymbirhynchus affinis, *Bl. J. A. S. B.* xv. p. 312; *Oates, S. F.* iii. p. 336. **Cymborhynchus affinis**, *Bl. B. Burm.* p. 126; *Hume, S. F.* viii. p. 86.

Description.—*Male and female.* Rump bright red, with indistinct cross lines of black; with this exception the whole upper surface, the lores, chin, throat and a broad pectoral band are black; the space between the black of the throat and the pectoral band, the cheeks and ear-coverts, the breast, belly, under tail-coverts and flanks are a rich vinous red; the thighs black; the tail black, with white spots on all the feathers except the central pair; wings black, with a conspicuous white spot below the coverts, and with a good deal of white on the inner webs of the feathers; the tertiaries black, each feather with a terminal red spot; under wing-coverts yellowish white; the edge of the wing golden yellow; the scapular feathers narrow, sharp-pointed, and with the outer webs of some pure white.

Length 8·2 inches, tail 3, wing 3·6, tarsus ·86, bill from forehead to tip ·74. The female is rather smaller.

This species closely resembles *C. macrorhynchus*, but may be recognized by the following characters:—the white spots on the tail-feathers are

larger, extending on the three outer pairs to *both* webs; the abdomen is uniformly red or washed with pale white, not with aureous; the wing-spot is conspicuous, not being hidden by the wing-coverts; each feather of the tertiaries has a long narrow red spot at its extremity; and the rump is obsoletely barred with black; it is also smaller than *C. macrorhynchus*.

The Allied Broadbill is restricted to Arrakan and the south-western portion of Pegu. Mr. Blyth received specimens from the island of Ramree, and I procured this bird on the Arrakan hills near Nyoungyo. It probably extends down to Cape Negrais. It appears to be common in some portions of the Irrawaddy Delta, for Capt. Raikes observed it round about Yandoon, and I have myself examined a specimen said to have been killed near Rangoon.

I have had no opportunity of observing its habits.

Genus CORYDON, Lesson.

400. CORYDON SUMATRANUS.

THE DUSKY BROADBILL.

Coracias sumatranus, *Raffl. Trans. Linn. Soc.* xiii. p. 303. *Corydon sumatranus*, *Salvad. Ucc. Born.* p. 111; *Bl. B. Burm.* p. 125; *Hume & Dav. S. F.* vi. p. 97; *Hume, S. F.* viii. p. 86.

Description.—*Male and female.* The whole plumage dull black, except the throat and upper breast, which are light brownish white, and the back, which varies from orange-yellow to light crimson; the first eight primaries with a band of white across their bases, and each of the tail-feathers, except the central pair, with a white spot.

The *young bird* is sooty black all over, has no patch on the back, and the throat and upper breast are duller brown.

Legs, feet and claws black; irides deep brown; upper mandible in some dark reddish brown, in others dark fleshy pink to pale horny brown, whitish at tip, and shading to fleshy pink at base; orbital skin, gape and a streak about the middle of the lower mandible dark fleshy pink; rest of lower mandible pale fleshy, whitish at tip; sometimes the whole of both mandibles are pale fleshy pink, bluish towards the tip. (*Davison.*)

Length 10·5 inches, tail 4·2, wing 5·4, tarsus 1·1, bill from gape 1·6. The female is of the same size.

The Dusky Broadbill is found, according to Mr. Davison, throughout Tenasserim. Capt. Wardlaw Ramsay records it from the Karin hills east

of Tonghoo, and Capt. Bingham states that it is common in the Thoungeen valley.

It extends down the Malay peninsula, and is found in Sumatra and Borneo.

Mr. Davison remarks :—"This species is spread throughout Tenasserim, but is nowhere abundant, being found in pairs or small parties, usually in moderately thin forest, but it occurs also in dense forest. During the day it is sluggish, and a party will, like *Serilophus lunatus*, allow themselves to be shot one after the other without any attempt to escape. They have an oft-repeated, mellow, rather musical note, quite different from, and not at all of the same class as, that of the three preceding species, and also a clear whistle, which they utter when flying from tree to tree."

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